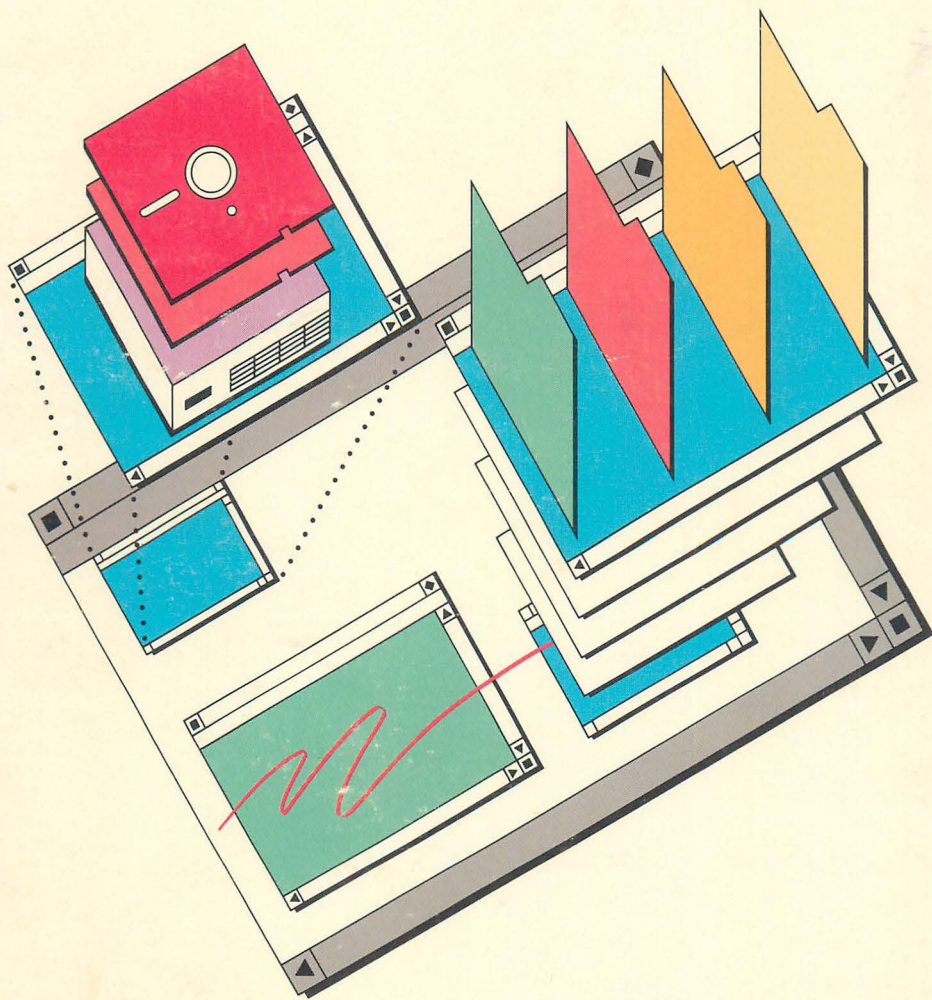
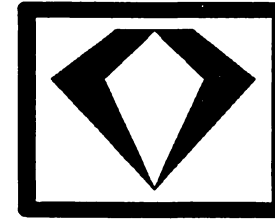


GEM/3[®] *Desktop*[™]

User's Guide



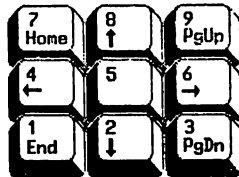


GEM Desktop Keyboard Reference

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Keyboard Equivalents to Mouse Techniques



Click

Press and release Home key.

Double-click

Press and release Home key twice, quickly.

Drag

1. Press and release End key.
2. Use arrow keys to move pointer.
3. When finished dragging, press Home key.

Shift-click

1. Use arrow keys to place pointer on first icon you want to select.
2. Press and release Home key to select icon.
3. Use arrow keys to move pointer to next icon you want to select.
4. Press Shift and Home keys to select icon.
5. Repeat steps 3 and 4 to select any additional icons.



If arrow keys do not move the pointer, press the Ctrl key and try again.

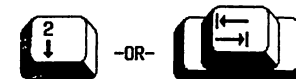
Dialog Editing Techniques



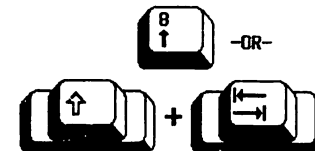
Moves text cursor left one character without deleting.*



Moves text cursor right one character without deleting.*



Moves text cursor to next field in which you can enter or change information.*



Moves text cursor to previous field in which you can enter or change information.*



Deletes character to right of text cursor.*



Deletes character to left of text cursor.*



Erases all characters in field where text cursor is located.

* - Effect is continuous if key is held down.

GEM[®]/3 *Desktop*[™]

User's Guide

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First Edition: December, 1987

Foreword

The GEM[®] Desktop™ and GEM[®] text and graphics applications make creating high-quality publications and graphics with your computer enjoyable and easy.

GEM/3™ is the latest addition to the GEM applications product line. It offers many new features, yet retains the best of previous versions of the GEM Desktop. New features are outlined in the *GEM/3 Desktop Installation Guide*.

How to Use this Guide

If you are familiar with the GEM Desktop and want information only about new features, skim Section 10 for an overview of the new version of GEM Output and read Section 13, which presents the GEM Output menus and commands. Also read Section 14 for information about new options for using your printer, plotter, and other output devices.

If you're new to the GEM Desktop but are familiar with graphics applications and mouse techniques, you should read Section 1 and skim through the manual once to get an overall impression of the GEM Desktop. Then read Section 2 to get started, and Sections 4, 5, and 6 for detailed instructions on using the GEM Desktop. Section 9 covers GEM Desktop menus and commands.

If you are using a graphics application for the first time, this manual guides you every step of the way. Simply read each section and follow the instructions. You'll be productive almost immediately and will soon master the GEM Desktop.

What this Guide Contains

Section 1: “Introduction”

This section describes the basic concepts behind the GEM Desktop.

Section 2: “Getting Started”

This section tells you how to start the GEM Desktop.

Section 3: “Getting Acquainted”

This tutorial section introduces you to the mouse techniques you’ll be using in the GEM Desktop and other GEM applications.

Section 4: “Windows”

The GEM Desktop divides your screen into *windows*. Windows allow you to view the contents of your disks and folders, bring up a desk accessory, and so on. This section describes window components and operations.

Section 5: “Folders”

Folders contain files and other folders. This section describes how you organize your documents or applications in folders.

Section 6: “Icons”

The basic elements in the GEM Desktop—disks, folders, applications, and documents—are shown as *icons*, or small pictures. This section shows you how to manipulate the icons to perform a variety of tasks.

Section 7: “Applications”

This section discusses software programs, how they relate to the GEM Desktop, and how document types are associated with them. It also describes the Clock, Calculator, and Print Spooler *desk accessories*.

Section 8: “Dialogs”

The GEM Desktop displays *dialogs* to provide information or ask for information in connection with an operation that you are performing.

Section 9: “Menus and Commands”

This section explains how to use the GEM Desktop’s menus and commands.

Section 10: “GEM Output Overview”

GEM Output is a sophisticated print application that lets you control how your output devices are used.

Section 11: “Starting and Using GEM Output”

This section tells you, in tutorial format, how to start GEM Output, select documents to print, choose the device to do the printing, and begin printing.

Section 12: “Output Lists”

GEM Output lets you create lists for printing multiple documents. You can save these lists for repeated use.

Section 13: “GEM Output Menus and Commands”

The commands in the GEM Output menus are described in this section.

Section 14: “Device Preferences”

This section shows you how to customize the operation of your printer, plotter, or other output device so that documents are produced to your specifications.

Assumptions and Conventions

Unless otherwise stated, the examples in this guide assume your computer has one floppy disk drive (drive A) and a hard disk drive (drive C).

“Mouse” is used generically to refer to the pointing device attached to your computer.

If you don’t have a mouse, you can learn how to use your keyboard in place of a mouse by studying the GEM Desktop Keyboard Reference card provided at the back of this guide. Keyboard shortcuts are explained in Section 9.

Some GEM Desktop commands, when they appear in menus, are followed by three dots. These dots indicate that a dialog appears when you choose the command. The Desktop uses dialogs to communicate interactively with you—they provide or request information.

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Introduction

As computers have become increasingly a part of everyday life, both in the workplace and at home, one plaintive question has been asked over and over: “Why are they so hard to use?”

Many would-be computer users are dissuaded by the belief that the secrets of using a computer are accessible only to a select few endowed with special training or a very particular kind of intelligence. They don’t think “ordinary people” can use a computer.

The GEM[®] Desktop™ and the other applications in the GEM[®] software family are designed specifically to put these fears to rest. They offer a pictorial, visually-oriented alternative to complex computer concepts.

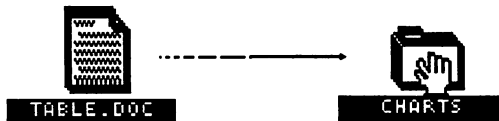
For example, suppose you want to copy a file named TABLE.DOC from one place on a disk to another. Your operating system calls these places *subdirectories*, and the command for copying this file could take the following form:

COPY \TEXT\TABLES\TABLE.DOC \DOCUMENT\CHARTS

Using your operating system to copy the file requires that you understand the principles of subdirectory hierarchies and the command syntax that will find the file and copy it to the destination you want. If you look to your operating system’s manual for help in understanding these concepts, you’ll first have to figure out what this means:

“COPY [/A][/B][d:][path]filename[.ext][/A][/B]
[d:][path]filename[.ext][/A][/B][V]”

Using the GEM Desktop, you can do exactly the same thing by moving pictures on the screen. These pictures are called *icons*, and you use the mouse as an extension of your hand to move the icons about.



To copy TABLE.DOC, you simply move a copy of its icon to the GEM Desktop *folder* that represents the destination subdirectory. It's just like taking a piece of paper out of one folder on your desk and inserting it into another folder.

What Is the GEM Desktop?

In technical language, the GEM Desktop is an *operating system interface*, a set of features that determine how you use your computer and its operating system.

Here's a simple example of an interface. If you wear a wristwatch, its interface is either analog (hour hand and minute hand) or digital (a numerical read-out). The net effect of both is the same; they tell you the time. But the two interfaces require different mental processes for reading the time and different mechanical actions for setting the time.

Similarly, you can perform all the basic file operations using the command line or the GEM Desktop. The advantage of the GEM interface is that it presents your actions visually. For example, when you copy a file, you *see* the file you're copying and the folder to which you're copying it. In this way, the GEM Desktop removes the level of abstraction the command line imposes.

Who Can Benefit from the GEM Desktop?

The GEM Desktop is designed to be productive for first-time and experienced users.

If you're new to computers, the GEM Desktop will help you get started quickly. You can begin working in the GEM Desktop and in your GEM applications without first having to learn the ins and outs of the operating system.

If you're already familiar with your computer's operating system, you'll find that the GEM Desktop offers some features not found there (for example, deleting a subdirectory and its contents in a single step). And if there are some operations you still prefer to initiate from the command line, you can leave the GEM Desktop, use the command line, and return to the GEM Desktop with just a couple of keystrokes.

GEM Desktop Terminology

Like anything unique, the GEM Desktop has a vocabulary of its own. Most of the terms (like "window," "dialog," and "scrolling") are explained later in this guide. If you encounter a term and are unsure of its meaning, look it up in the index.

The GEM Desktop uses three terms—*folder*, *application*, and *document*—that correspond directly to terms used in your operating system.

As noted previously, a folder is the same as a subdirectory.

An application is a program that does work for us or amuses us. This includes word processors, spelling checkers, drawing programs, and games.

GEM Desktop terminology uses "document" as a collective term to describe all other kinds of files. In operating system terminology, these files include *data files*, *overlay files*, and other files either associated with or created by an application.

What's Next?

If you haven't already installed the GEM Desktop, do so now—you'll find instructions in the *GEM/3 Desktop Installation Guide*. Then you can move on to the next section of this guide and start using the GEM Desktop!

Getting Started

This section contains the basic information you need to start the GEM Desktop.

Starting the GEM Desktop

How you start the GEM Desktop depends on whether you've installed it on a hard disk or on floppy disks. Instructions for starting from either type of installation follow.

During installation, the GEM Setup program creates a *batch file* called GEM.BAT and places it in the root directory of the disk on which you have installed the GEM Desktop. GEM.BAT contains the commands you need to start the GEM Desktop. See your operating system manual for a complete description of batch files. GEM Setup is described in the *GEM/3 Desktop Installation Guide*.

Starting from a Hard Disk

Assuming your hard disk is drive C, type each of the following commands at your operating system prompt (A> or C>):

```
C: _  
CD \ _  
GEM _
```

When the GEM Desktop appears on your screen, you're ready to start work. Before you move on to Section 3, you might want to read "Start the GEM Desktop Automatically," later in this section.

If the GEM Desktop doesn't appear after you enter the GEM command, you probably made an incorrect selection when you installed the software with the GEM Setup program. Review the information you provided on the system information sheet in the *GEM/3 Desktop Installation Guide* and then rerun GEM Setup.

Starting from Floppy Disks

Insert your GEM STARTUP disk in drive A. Turn on your computer or, if it's already on, reboot your operating system. Type this command when your operating system's prompt is displayed:

```
GEM _
```

In response to this command, you'll see the following message displayed on your screen:



To run the GEM Desktop, insert your GEM DESKTOP disk in drive A and click on OK or press Enter. To return to DOS, click on Cancel.



Remove your GEM STARTUP disk from drive A and set it aside.



Insert your GEM DESKTOP disk in drive A, close the drive door, and press the Enter key. You see an hourglass icon on your screen, telling you your computer is busy completing your instructions.

In a few moments, the GEM Desktop appears.

If the GEM Desktop doesn't appear after you've inserted your GEM DESKTOP disk, you probably made an incorrect selection when you installed the software with the GEM Setup program. Review the information you provided on the system information sheet in the *GEM/3 Desktop Installation Guide* and then rerun GEM Setup.

Starting the GEM Desktop Automatically

Every time you load the operating system by turning on your computer or rebooting, it looks for a batch file named AUTOEXEC.BAT. If the operating system finds this file in the root directory of the disk from which it was loaded, it automatically processes the commands contained in the file.

If you want the GEM Desktop to start automatically every time you start your computer, you can:

- create an AUTOEXEC.BAT file that contains the necessary commands
- include the necessary commands in an existing AUTOEXEC.BAT file

Please see the *GEM/3 Desktop Installation Guide* for directions concerning an AUTOEXEC.BAT file.

Getting Acquainted

This section acquaints you with some basic operations of the GEM Desktop. It's written as a tutorial with accompanying illustrations.

Keep in mind that your screen might look a little different from the illustrations because the GEM Desktop is tailored to your specific machine.

The tutorial assumes you have a mouse attached to your computer. If you don't, you'll need the GEM Desktop Keyboard Reference (provided at the end of this manual) to do the exercises.

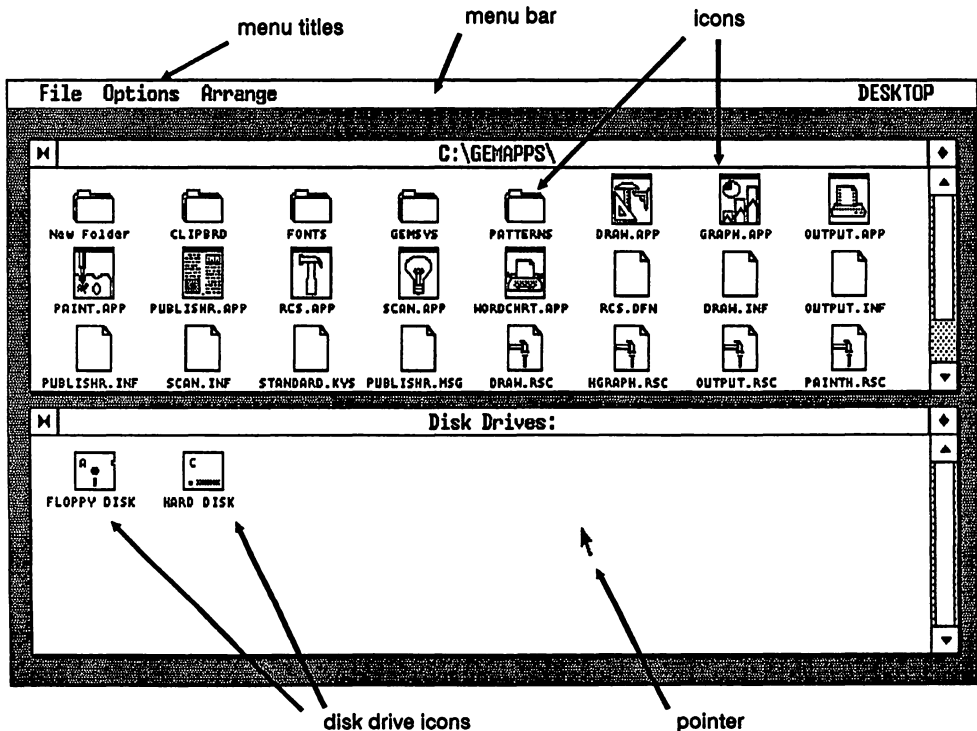
The tutorial also assumes you have successfully installed the GEM Desktop as described in the *GEM/3 Desktop Installation Guide*. If you haven't, you won't be able to start the GEM Desktop.

To complete the tutorial exercises, you'll need a floppy disk. You can use your backup copy of the GEM SYSTEM DISK (make sure it's write-protected). If you use a different floppy disk, it should contain at least one but no more than 15 items (files); it should not contain any folders (subdirectories). The disk you use doesn't have to meet these requirements but the instructions will be easier to understand if it does.

Starting the GEM Desktop

In Section 2, you learned that there are several ways to start the GEM Desktop. Refer to that section if you need help with this step.

When the Desktop first appears, it looks similar to the following illustration. We've labeled the components you need to know about for the tutorial. You'll learn more about these and other components in later sections.



Note the two *windows* that take up most of the screen. The icons in the top window represent the contents of the disk from which you started the GEM Desktop—the example shows hard disk drive C. The icons in the bottom window represent the disk drives on your computer.

Moving the Pointer



The *pointer* moves on the Desktop when you move your mouse. Practice moving the pointer, but for now, stay away from the menu bar at the top of the screen. (If you accidentally make a menu drop down, move the pointer out of the menu into an open area, then press and release the mouse button. If your mouse has more than one button, use the one on the left.)

To move the mouse without moving the pointer, lift the mouse up before moving it.

Mouse Techniques

You manipulate the pointer with your mouse, graphic tablet, or keyboard to do a variety of Desktop operations.

If you don't have a mouse, you can move the pointer with your keyboard's arrow keys. If the arrow keys don't work at first, press the Ctrl key. The Ctrl key switches the keyboard in and out of the mode in which the arrow keys control the pointer's movements.



The mouse techniques most commonly used with GEM applications are listed with their keyboard equivalents on the next page.

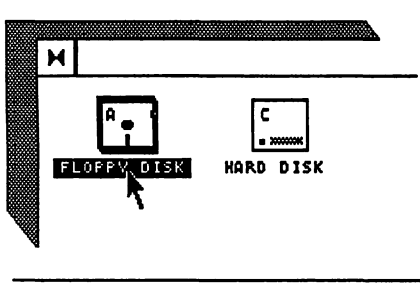
Note: If your mouse has more than one button (most do), use only the button on the left. The GEM Desktop does not respond to input from the other buttons.

Technique	Mouse	Keyboard
Click	Press the button once.	Press the Home key once.
Double-click	Press the button twice rapidly.	Press the Home Key twice rapidly.
Drag	<ol style="list-style-type: none"> 1. Press and hold down the button. 2. Move the mouse. 3. Release the button. 	<ol style="list-style-type: none"> 1. Press the End key. 2. Press to arrow keys to move the pointer. 3. Press the Home key.
Shift-click	Hold down the Shift key as you press the button.	Hold down a Shift key as you press the Home key.

Examples that use each technique follow.

Selecting an Icon (Clicking)

Click means press and immediately release the mouse button. You click on an icon to *select* it. Most GEM applications work on the principle that you first select an object, such as an icon, and then do something to that object either by direct manipulation with the mouse or by choosing a command from a menu.



Select the drive A floppy disk icon by placing the pointer on it and clicking the mouse button. The GEM Desktop highlights the selected icon by placing a bold shadow around it.

Now move the pointer to an open area of the window and click again. This *de-selects* the icon and the bold shadow disappears.

Opening an Icon (Double-clicking)

Double-click means press and release the mouse button twice, quickly. Double-clicking is an easy way to *open* an icon so you can see what it contains. Try the following steps:

1. Insert the floppy disk you chose to use during the tutorial in drive A and close the drive door.
2. Place the pointer on the drive A icon in the bottom window and double-click.

You should see icons in the bottom window representing the items on the disk in drive A. If the icons didn't appear, try double-clicking more rapidly.

You can adjust the speed with which you must double-click by using the **Set preferences** command; see "Options Menu" in Section 9, "Menus and Commands."

Selecting Multiple Icons (Dragging)

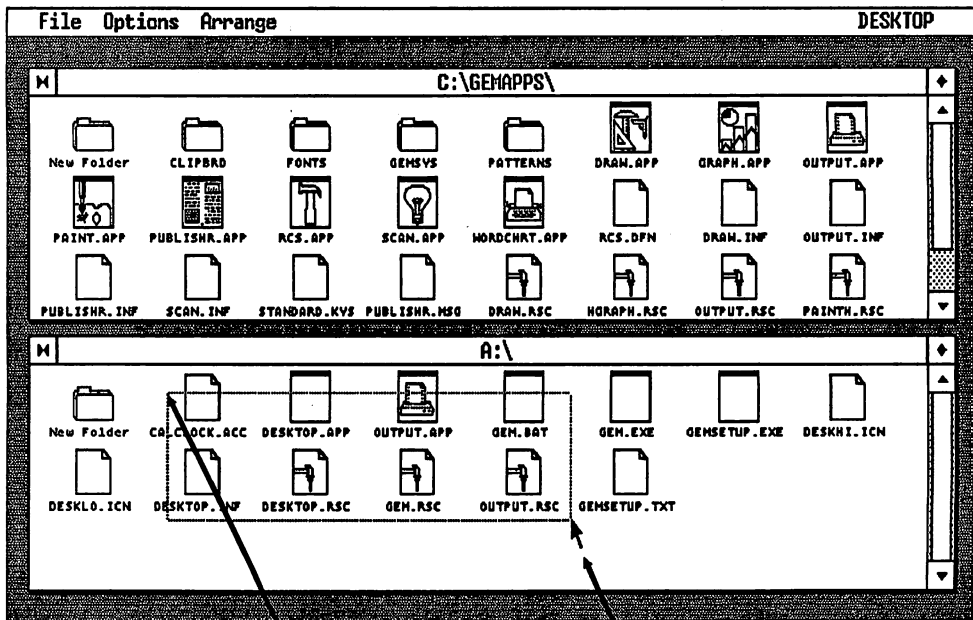
Sometimes you'll want to select more than one icon at a time. For example, you might want to select several icons so you can copy them all in one operation.

Drag means press and hold down the mouse button while you move the mouse. When you drag, you form a "rubber rectangle" that expands and contracts as you move the pointer. When the rubber rectangle touches the icons you want to select (it doesn't have to completely surround them), release the mouse button. The GEM Desktop highlights the icons you've selected.

You can form the rubber-rectangle only by dragging from upper left to lower right.

Important Note: To form the rubber rectangle, you must begin the drag operation with the pointer in an open area of the window. If you start with the pointer directly on an icon, you'll drag that icon. This is another use for dragging described later in this section.

Study the following illustration and then try dragging to select multiple icons:



Hold down the mouse button and start dragging from here.

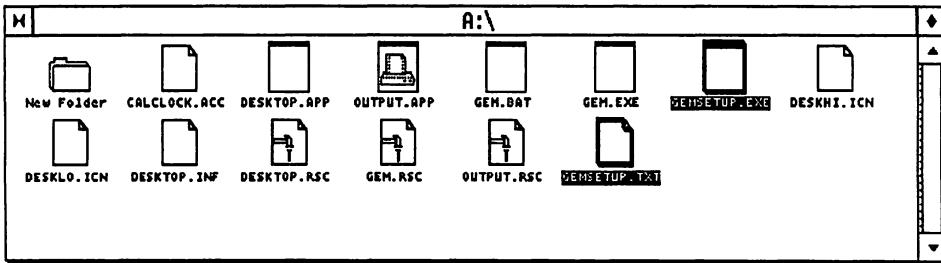
Drag to here and release the mouse button.

To *de-select* all of the icons you just selected, click in an open area of either window.

Selecting Multiple Icons (Shift-clicking)

When you use the drag technique to select icons, you can only select icons that are next to each other. Use the *Shift-click* technique to select icons that are scattered throughout the window. For example, if you want to select only the icons in the top left and bottom right corner, Shift-click is the technique to use.

To shift-click, hold down the Shift key on your keyboard while you click on the icons you want to select. The next illustration shows two icons in the lower window of the Desktop that have been selected by Shift-clicking. Try Shift-clicking on your Desktop to select multiple icons:



To de-select all of the icons you just selected, click in an open area of the window.

To de-select individual icons, Shift-click on those you want to de-select. This is a good way to de-select individual icons from a group selected with the rubber rectangle.

Copying an Icon

To copy an icon, drag it where you want it copied and release the mouse button. The copy's destination can be a window, folder, file, or disk icon.

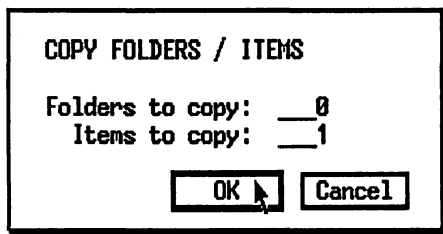
You must begin with the pointer directly on top of the icon you want to copy; otherwise, you form a rubber rectangle, as described earlier.

Look at the bottom window and find an icon you want to copy. If you're using the backup copy of your GEM DESKTOP SYSTEM DISK, use the "GEMSETUP.TXT" icon. (We'll delete the copy in a later step.) Do not copy a folder icon for this exercise (if one is present).



Place the pointer on the icon you want to copy and drag it to an open area in the top window. Notice that when you drag, the pointer changes from an arrow to a hand.

When you release the mouse button, you'll see the COPY FOLDERS / ITEMS *dialog* on your screen:



Place the pointer on the rectangle labeled "OK" (it's called a *button*) and click. This starts the copy process.

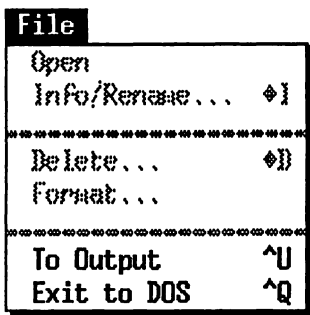
Copying Multiple Icons

When you use the copy technique just described, the GEM Desktop copies all currently selected icons. For example, if you select several icons and then drag any one of them to the copy destination, you end up with copies of all the selected icons.

Displaying Menus

The GEM Desktop menus contain commands you choose to do things on the Desktop.

Move the pointer up to the left corner of the Desktop and touch the word "File." The File Menu drops down below the menu bar.



Each line in a menu is a command. Some commands are "dimmed" or "greyed out." You cannot choose these dimmed commands because they have no meaning in the context of what you are doing at the time. For example, if no icons are selected when you display the File Menu, the **Delete** command is dimmed because the GEM Desktop doesn't know what you want to delete.

Slide the pointer along the menu bar. When it touches the other menu titles their respective menus drop down.

We're not ready to choose a command yet, so move the pointer to an open area of the Desktop and click. The last menu you displayed disappears.

Renaming Icons

In an earlier step, you copied an icon. Now you can use one of the File Menu commands to change the copy's name. Following these steps:

1. Click on the icon in the top window that represents the copy you made earlier. (The icon's name is "GEMSETUP.TXT" if you're using the backup of your GEM DESKTOP SYSTEM DISK.)
2. Display the File Menu and place the pointer on the **Info/Rename** command. Click the mouse button; you'll see a dialog titled "ITEM IN-

FORMATION / RENAME.” This dialog shows you the name of the icon you selected in step 1. The vertical bar at the end of the name is the text cursor.

3. Press the Esc key to erase the icon name and then type:

JUNK.AAA 

Pressing the Enter key is the same as clicking on the OK button. You should see an icon labeled JUNK.AAA in the top window.

Deleting Icons

To delete the icon you copied and renamed to JUNK.AAA, follow these steps:

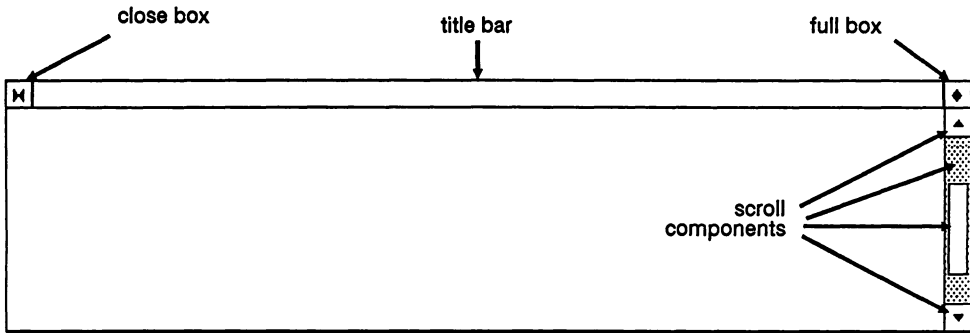
1. Select the JUNK.AAA icon by clicking on it.
2. Choose the **Delete** command from the File Menu.
3. When you see the DELETE FOLDERS / ITEMS dialog, click on the OK button or press the Enter key—if you change your mind and don’t want to delete the icon, click on the Cancel button. The GEM Desktop erases the file from your disk and removes the icon from the window.

This completes the tutorial.

Windows

When you first start the GEM Desktop, it displays two windows on your screen. The windows allow you to “look inside” things, like a disk or a folder.

Although they probably contain different icons, the two windows are made up of the same components. The following illustration identifies the window components:

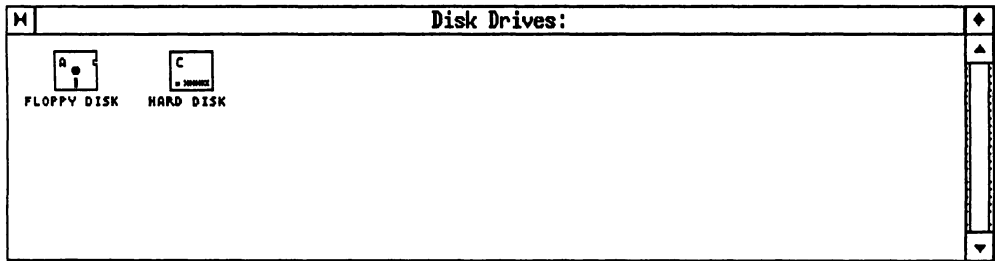


Title Bar

Information in the *title bar* tells you, at a glance, which disk drive and folders you have open, if any.

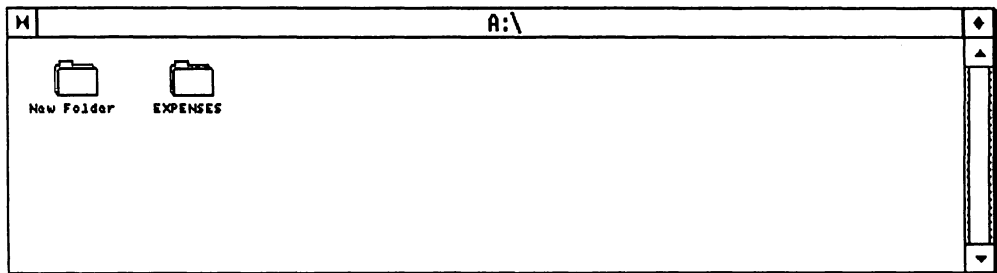
The steps that follow explain what the title bar information means.

Assume the bottom window on your Desktop looks like the one shown below:



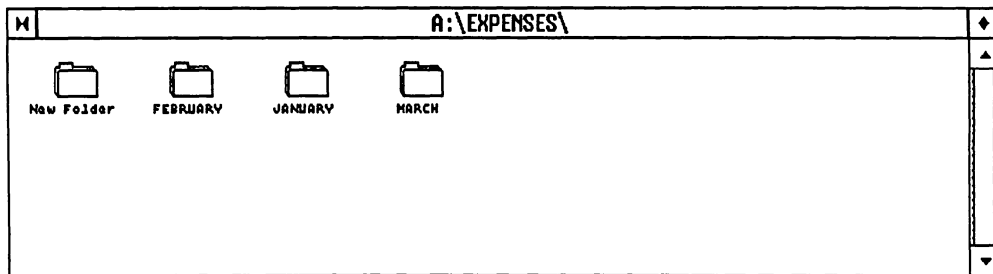
The phrase "Disk Drives:" in the title bar means the window's icons represent your computer's disk drives—drive A is a floppy disk drive and drive C is a hard disk drive.

Now assume you place a disk in drive A. When you double-click on its icon to open the disk, the bottom window looks like this:



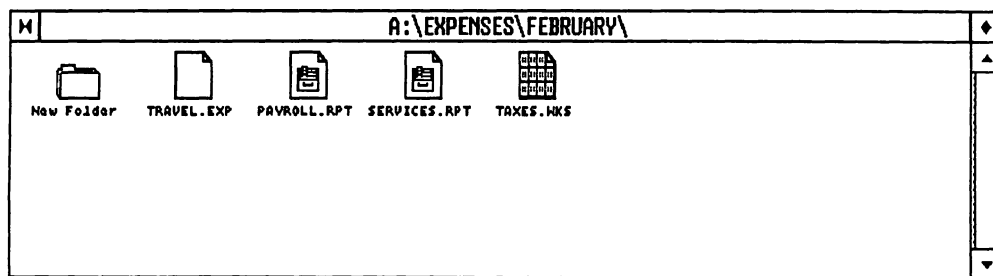
The title bar now reads "A:\" to tell you the window is open to drive A.

Note the folder icon named EXPENSES. As the next illustration shows, if you double-click on this icon, the GEM Desktop opens the folder and displays its contents.



To indicate that you are now in the EXPENSES folder on drive A, the information in the title bar changes to "A:\EXPENSES\." In the window, there are now three icons for folders that contain monthly expense information.

If you double-click on the FEBRUARY folder icon, your window looks like the one shown next:



The contents of the window and title bar change once again, and so it goes as you continue opening more folders until you find the specific icon you want.

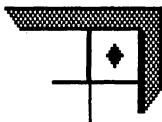
Close Box



Click on the *close box* to go back to the previous folder you opened. If there is no previous folder, you see disk drive icons in the window.

If you hold down the mouse button while the pointer is on the close box, the effect is continuous.

Full Box



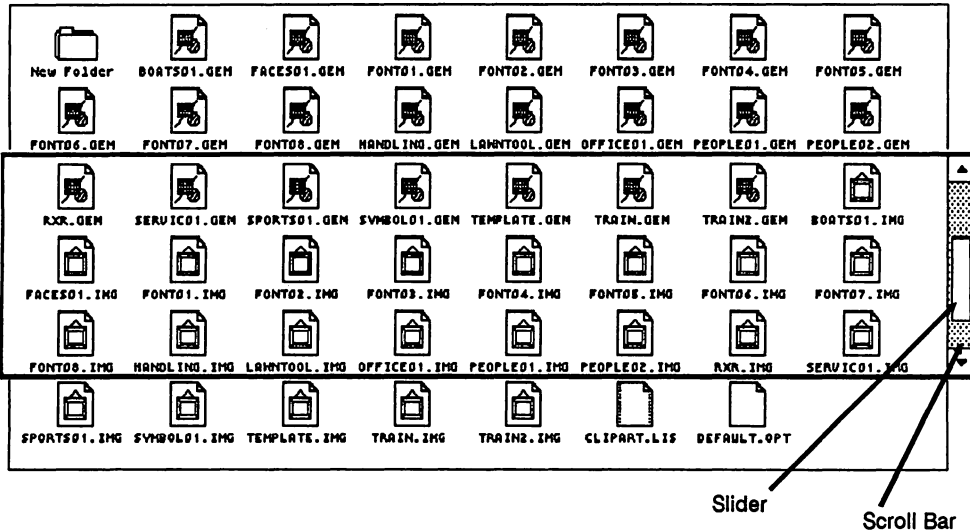
Your windows can be either normal or full size. Click on a window's *full box* to change from one size to the other.

Expanding a window to full size is useful if the disk or folder contains more icons than the window can show in normal size.

When either window is full size, it covers up the other window.

Window Scroll Components

Sometimes a window (even when expanded to full size) won't be able to display all of the icons the disk or folder contains. When this happens, use the *scroll bar*, *slider*, and the *scroll arrows* to scroll the contents through the window to see the other icons. The next illustration shows the concept of scrolling:



Scroll Bar and Slider

The scroll bar and slider help you move around within a window when it contains more icons than can be displayed at one time. The slider also tells you something about the size of the disk or folder and your current location within it.

If the slider extends the full length of the scroll bar, the window is showing you all of the icons in that particular disk or folder. You can't scroll the window in this case, of course.

If the slider does not extend the full length of the scroll bar, the disk or folder contains more icons than are currently shown in the window. Drag the slider up or down the scroll bar to see the other icons.

If you click on the scroll bar, rather than dragging the slider, the GEM Desktop scrolls one full window of icons at a time. Click above the slider to scroll up and below it to scroll down.

The size of the slider in relation to the scroll bar tells you how much of the disk or folder is visible in the window. For example, if the slider ex-

tends half the length of the scroll bar, the window is showing you half the icons in the disk or folder.

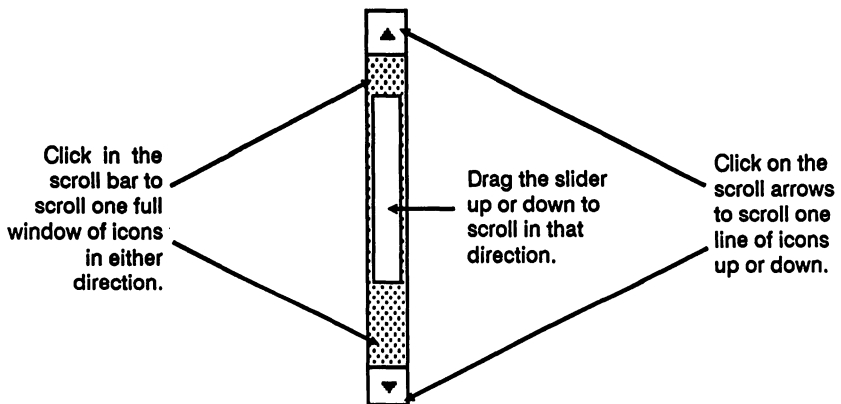
The relative position of the slider inside the scroll bar indicates your position. For example, if the slider is at the bottom of the scroll bar, you are at the bottom of the disk or folder.

Scroll Arrows

The *up-arrow* is at the top of the scroll bar; the *down-arrow* is at the bottom. Click on the up-arrow to scroll one line of icons toward the top of the folder and on the down-arrow to scroll one line toward the bottom. Hold the mouse button down for continuous scrolling.

Summary of Scroll Techniques

Here's a summary of how to use the window scroll components:



Other Window Operations

The following window operations are described in detail elsewhere in this guide.

Display Contents as Text

You can display disk and folder contents as icons or as text. Read the description of the **Show as icons/text** command beginning in Section 9, "Menus and Commands."

Display Contents in a Different Order

Use the commands on the Arrange Menu to arrange the window contents in various ways. You can arrange the contents by icon name or type, icon size, or the date the icon was created or last modified. The Arrange Menu is described in Section 9, "Menus and Commands."

Save Your Windows

If you want your windows and their contents to appear a certain way each time you start the GEM Desktop, read about **Save desktop** under "Options Menu Commands" in Section 9.

Folders

To be consistent with the desktop metaphor, the GEM Desktop provides you with folders. You use the folders much the same way you use them in a file cabinet. That is, you organize your information into different folders so you can locate it quickly and easily when you need it.

(If you are experienced with the DOS operating system, it will help you to know that folders are the same thing as directories and subdirectories.)

When you first open a disk icon and the disk contains folders, you see the folders in the window. Until you open one of the folders, you are in the root directory of that disk. A disk does not have to contain folders, and it can contain icons in the root directory.

Creating a New Folder

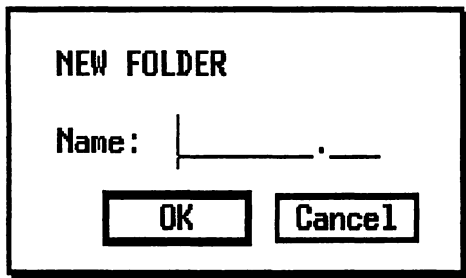


Folders are represented on the GEM Desktop by an icon like the one shown here. You can place icons inside folders, remove them from folders, open folders to display their contents, and much more.

The first icon in every window is always a folder named "New Folder" (except when the window displays disk drive icons).



To create a new folder, double-click on the New Folder icon. The GEM Desktop then displays the NEW FOLDER dialog so you can type the name of the folder you are creating:



As you type the folder's name, it appears on the "Name:" line of the NEW FOLDER dialog. The folder's name can be up to eight characters long—you can also use a three character folder type. The optional folder type follows the period in the folder's name.

After you type the folder's name, click on the OK button or press the Enter key.

The dialog will be removed from the screen and you'll see an icon for the new folder appear in the current window. Another New Folder icon replaces the one you just used, so you always have a "new folder" available.

Folders Inside Other Folders

Up to a certain point, you can place folders inside other folders. For example, assume you have a disk containing a folder named TAXES-87 and you want to create folders named EXPENSES and INCOME inside the TAXES-87 folder. Here are the steps:

1. With your disk drive icons visible in the window, place the disk containing the TAXES-87 folder in drive A and double-click on the disk drive icon to open its window. You see your TAXES-87 folder in the window.
2. Double-click on the TAXES-87 folder. Its contents appear in the window. You also see a folder labeled New Folder at the top-left corner of the window.
3. Double-click on the New Folder icon. The NEW FOLDER dialog appears. Name your new folder "EXPENSES."

4. Repeat the previous step, only this time name your new folder "INCOME."
5. Click on the window's close box to move back into the TAXES-87 folder. You'll see the two new folders, EXPENSES and INCOME, in your window.

Note: DOS limits the number of folders you can place inside other folders. The limiting factor is the number of characters in the combined folder names. When you combine all of the folder names into one string, the string cannot contain more than 63 characters (including backslashes). The string can contain a disk drive identifier (for example "A:"), in which case it can be up to 65 characters long.

Copying Folders

The basic method for copying a folder and its contents is to drag the folder's icon to the place where you want the copy created. However, your results vary depending on several different factors.

If you drag a folder icon to an open area of the same window, you create a "name conflict" because, in most cases, you cannot have two folders with the same name. If you attempt to do this, the GEM Desktop asks you to enter a different name for the copy you are making. For details, read "Name Conflicts" in Section 6.

If you drag a folder icon on top of another folder icon and the two have different names, the GEM Desktop places the first folder icon and its contents inside the destination folder icon. For example, assume you have two folders named EXPENSES and PAYROLL. You drag the PAYROLL folder icon on top of the EXPENSES folder icon and release the mouse button. If you then open the EXPENSES folder icon, you'll see the PAYROLL folder icon inside. The original PAYROLL folder icon still exists and both PAYROLL folders have identical contents.

If you drag a folder icon on top of another folder icon and the two have the same name, the GEM Desktop copies only the contents of the first

folder into the second. For example, assume you have folders named EXPENSES on both your hard disk and on a floppy disk. You drag your EXPENSES folder icon from the floppy disk on top of your EXPENSES folder icon on your hard disk and release the mouse button. If you then open the EXPENSES folder icon on your hard disk, it has its original contents plus whatever was in the EXPENSES folder icon on your floppy disk. You will not, however, see a new EXPENSES folder icon inside of your original EXPENSES folder.

Placing Icons Inside Folders

One way to place an icon (document, application program, or existing folder) inside a folder is to drag the icon on top of the folder's icon. When the destination folder icon is highlighted, release the mouse button.

For example, assume you have an icon named PAYROLL.RPT (Payroll Report) you want to place inside your EXPENSES folder. With the EXPENSES folder visible in your window, drag the PAYROLL.RPT icon on top of the folder icon. When the EXPENSES folder icon is highlighted, release the mouse button.



Another way to place an icon inside a folder is to open the folder and drag the icon inside the folder's window.

Both of these operations place a copy of the icon in the destination folder—the original icon still exists.

Deleting Icons

Follow these steps to delete an icon from a folder:

1. Double-click on the folder's icon to open its window.
2. Select the icon you want to delete by clicking on it.
3. Choose the **Delete** command from the File Menu.

To delete multiple icons in a single operation, use the Shift-click or drag technique to select the icons before you choose the **Delete** command.

Deleting Folders

Follow these steps to delete a folder:

1. Select the folder or folders you want to delete.
2. Choose the **Delete** command from the File Menu.

When you delete a folder, you also delete all of the icons it contains, including other folders and their contents.

Renaming Folders

You cannot directly rename a folder, but you can do the following:

1. Create a new folder.
2. Copy the icons from the old folder to the new one.
3. Delete the old folder.

Icons

Icons are pictures of items you use with the GEM Desktop. A different style of icon represents each of the following different types of items:

- Disk drives
- Folders
- Applications
- Documents

Disk Drive and Folder Icons



FLOPPY DISK



HARD DISK



EXPENSES

Disk drive icons (like the ones shown at the left) are labeled with their corresponding drive identifier letters: A, B, C, etc. If the disk drive icons shown on your Desktop do not exactly match your computer system, use the **Install disk drive** command (described in Section 9, “Menus and Commands”) to make the necessary additions or deletions. You can also use this command to change drive identifier letters and icon labels.

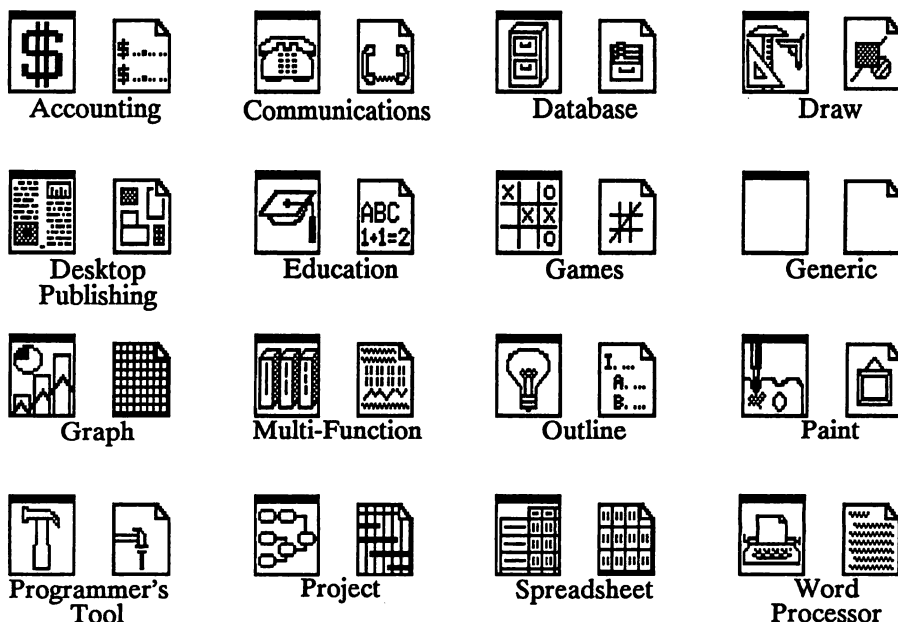
Folder icons are labeled with the folder name you provide when you create the folder. Folders always appear as the first icons in a window and are always in alphabetical order, regardless of how the other icons in the window are arranged. The folder’s name appears in the window title bar when you open the folder. For more information about folders, see Section 5.

Application and Document Icons



Application and document icons are labeled with their name (up to eight characters) followed by a type identifier (up to three characters). The name and type are separated by a period (.). The name and type are separated by a period (.).

The next figure shows the icon set that represents different types of applications and the documents they create. In each set, the icon on the left represents a type of application; the one on the right represents the document it creates.



Note the “Generic” icons in the preceeding figure. Unless you tell the Desktop to use a different set of icons to represent an application and its documents, the generic icons are used. You can use the **Configure application** command (described in Section 7) to select a different set of icons to represent an application and its documents.

Copying Icons

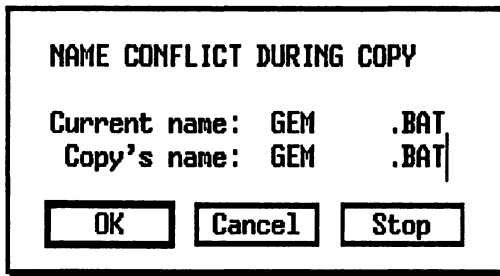
Follow these steps to copy an icon:

1. Select the icon you want to copy. If you want to copy more than one icon, Shift-click to select the ones you want.
2. Drag the icon or any single icon in a group to the place you want to store the copies. You can drag to an open area of a window, directly to a disk icon, or directly to a folder icon.
3. When the COPY FOLDERS / ITEMS dialog appears, click on the OK button to start the copy process. (You can bypass the dialog using the **Set preferences** command on the Options Menu.)

For the description of how to remove icons from the Desktop, see “Deleting Icons” in Section 5.

Name Conflicts

You cannot have two icons with the same name in the same folder or in the root directory of a disk. If you attempt to do this, the NAME CONFLICT DURING COPY dialog appears:



Click on the dialog button that matches the action you wish to take:

- OK** Click on this button after you enter a name for the new copy you are making. You can use the Esc key to erase the "Copy's" name completely before typing a new one.
- Cancel** Click on this button to cancel copying the current icon. If you're only copying one icon, it cancels the copy operation. If you're copying multiple icons, the copy operation continues with the next icon.
- Stop** Click on this button to stop the entire copy operation.

Renaming Icons

Disk drives can have both names and identifying letters. You can use the **Install disk drive** command (Section 9) to change the drive name and/or identifier letter.

Disk drive names can be anything you want them to be. The GEM Desktop, by default, names them “Floppy Disk” or “Hard Disk”.

Typically, the letters A and B identify floppy disk drives; the letters C and D identify hard disks.

You cannot directly rename a folder icon. See “Renaming Folders” in Section 5 for details.

Here’s how to rename an application or document icon:

1. Select the icon you want to rename.
2. Choose the **Info/Rename** command from the File Menu.
3. When the ITEM INFORMATION / RENAME dialog appears, press Esc to erase the icon’s name from the dialog.
4. Enter the name and type you want and then click on OK or press Enter. (Read “Name Conflicts” earlier in this section for restrictions on the new name you enter.)

If you rename either an application or a document that has been “configured,” you might be breaking the association between the two. See “Configuring Applications” in Section 7 for details.

Applications

Applications are software programs you run on your computer to create and process information. The GEM Desktop classifies applications into two categories:

- DOS Applications
- GEM Applications

DOS Applications

Applications in this category are usually character-based. That is, they don't use the basic components typical in the GEM Desktop, such as drop-down menus, icons, and a mouse pointer. Examples of DOS applications include the following:

- Lotus[®] 1-2-3[®]
- MicroPro[®] WordStar[®]
- Ashton-Tate[®] dBase[®]

With very few exceptions, you can run any DOS application from the GEM Desktop. Instructions for starting and configuring DOS applications follow later in this section.

GEM Applications

Digital Research® and other software development companies publish GEM applications. These applications use a graphics-based interface, optional pointing device, drop-down menus, and other GEM Desktop-type features. GEM applications published by Digital Research include:

GEM® Desktop Publisher™

A publishing program you use to produce illustrated brochures, pamphlets, newsletters and other documents.

GEM® Draw Plus™

A graphics program you use to create “object-based” pictures (circles, lines, rectangles, text, and so forth).

GEM® First Word Plus™

A full-featured word processing program with the ability to merge graphics-based pictures with text.

GEM® Graph™ A graphics program that translates information (numbers, statistics, etc.) into pie charts, bar charts, line graphs, and so forth.

GEM® Paint™ A graphics program you use to create “pixel-based” pictures. (Pixels are the individual dots that form images on your screen.)

GEM® Scan™ An image scanning and editing program that connects your scanner to your personal computer. With GEM Scan, you can include photographs, drawings, and other printed images in your documents.

GEM® WordChart™

A text-based program you use to create charts, signs, presentation foils, and overhead projections. You can subsequently add graphics to your charts with GEM Draw Plus.

Application and Document Types

Applications and documents all have names. The name appears beneath the icon when it is displayed in a window. The name can contain up to eight characters.

Applications and documents also have a type, which follows the name. The type can contain up to three characters. A period (.) separates the name and the type. Here are some examples:

DRAW.APP	The name of the icon is DRAW (for GEM Draw Plus) and its type is APP (indicating a GEM application).
INCOME.GRF	The name of the icon is INCOME and its type is GRF; this is a graph-type document created with GEM Graph.
WS.COM	The name of the icon is WS (for WordStar) and its type is COM (indicating a DOS application). DOS applications also use type EXE.

Applications are of the following types:

- APP (GEM applications)
- BAT (batch files)
- COM (command files—DOS applications)
- EXE (executable files—DOS applications)

You can't run an application from "within" the GEM Desktop unless it's one of these types.

Documents can be any type that you or the application program want them to be.

Starting Applications

You have several ways of starting applications under the GEM Desktop.

Normal Startup

The most common ways of starting an application are:

- double-clicking on the application's icon
- selecting the application's icon and then choosing the **Open** command from the File Menu

If you use either of these methods to start a DOS application, you might see the OPEN APPLICATION dialog, which is explained later in this section.

Startup with a Specific Document

You can start an application and have it immediately load a particular document. To start an application this way, do either of the following:

- double-click on the icon that represents the document you want loaded
- click on the document's icon to select it and then choose the **Open** command from the File Menu

Before you can start a GEM or DOS application this way, however, it must meet the following requirements:

- You must "configure" the application. (This process is described later in this section.)
- You must have specified the document's type in the CONFIGURE APPLICATION dialog.
- If the application is a DOS application, it must be one that lets you name a document when you start the program.

The application and the document must be in the same folder, or the application must be in a “search path.” (Search paths are described later in this section.)

OPEN APPLICATION Dialog

Some DOS applications let you specify the name of a document you want to use, or enter parameters that control how the application operates. If you configure the application as this type (see “Configuring Applications” next in this section), the OPEN APPLICATION dialog appears when you start the application from the GEM Desktop:

OPEN APPLICATION

Name: _____
Parameters: _____

Enter the name of the document you want to load, or enter parameter values that are acceptable to this application.

OKCancel

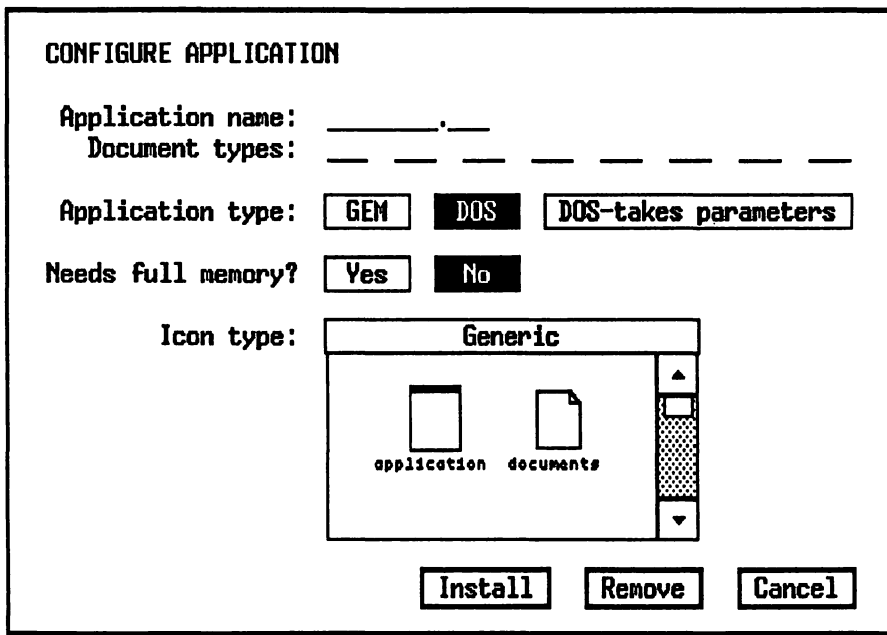
You can enter a document name or program control parameters in the Parameters field. (Refer to the application’s manual to find out what you can enter.)

Configuring Applications

When you configure a DOS or GEM application, you’re telling the GEM Desktop how you want the application to run. You can also choose a different icon to represent the application and its documents.

Note: GEM applications published by Digital Research have an application named INSTALL.APP on the product disk. When you run this program, it configures the application for you. See your application manual for instructions.

You configure an application by completing the CONFIGURE APPLICATION dialog, shown in the following illustration:



The dialog box is titled "CONFIGURE APPLICATION". It contains the following fields and controls:

- Application name:** A text field with a cursor and a period.
- Document types:** A text field with a cursor.
- Application type:** Three buttons: "GEM", "DOS", and "DOS-takes parameters". "DOS" is currently selected.
- Needs full memory?** Two buttons: "Yes" and "No". "No" is currently selected.
- Icon type:** A sub-dialog box titled "Generic" containing two icons: a square labeled "application" and a document icon labeled "documents". To the right of the icons is a vertical scrollbar.
- Buttons:** "Install", "Remove", and "Cancel" at the bottom.

Here's how to configure an application:

1. Click on the application's icon to select it. The application's type must be APP, BAT, COM, or EXE. (PAINT.APP, WS.COM, and 123.EXE are examples.)

If an application is already configured and you want to reconfigure it, you can either click on one of its document icons or on the application's icon.

2. Choose the **Configure application** command from the Options Menu to display the CONFIGURE APPLICATION dialog.
3. In the "Document type" fields, enter the document types you want to associate with the application. For example, you might want to associate document types DOC and TXT with documents you create with your word processing application. You can enter as many as eight types. Use the Tab key, Shift-Tab keys, or the mouse pointer to move between fields.

If the application automatically assigns a type to its documents, enter that type here. For example, Lotus 1-2-3 versions 1 and 1A produce documents with a WKS type. Check the application's manual to see if it assigns a type to its documents.

If the application doesn't automatically assign a type, enter one or more of your own choosing. Be sure you give this type to any documents you create with the application.

If you associate the same document type with more than one application, the GEM Desktop recognizes only the last one you configure.

4. Click on the button following the "Application type" message to identify the kind of application you're configuring: GEM, DOS, or "DOS-takes parameters".

If you're configuring a DOS application that lets you enter a document name or other parameters when you start the program, click on the "DOS-takes parameters" button. When you start a DOS application of this type, the OPEN APPLICATION dialog appears, as described earlier in this section.

5. Some applications, such as a spreadsheet program, might require a lot of memory to operate. If you are configuring an application of this type, click on the Yes button following the "Needs full memory?" message .

If you click on the Yes button, the GEM Desktop operates in “step-aside” mode when you start the application. In this mode, all but the essential parts of the Desktop temporarily leave memory to make as much room as possible available to the application. Because this slows down Desktop operations, you should only indicate that the application “Needs full memory” if this is truly the case. See your application manual.

6. In the “Icon type” window, you see the application and document icons the GEM Desktop currently uses to represent these items. If you don't want to use a different set of icons, skip ahead to step 7.

The window contains a scroll bar, slider, and scroll arrows, just like a Desktop window. Scroll the window contents until the window displays the set of icons you want to use. If none of the icons suits you, leave the “Generic” icons in the window.

7. When everything in the CONFIGURE APPLICATION dialog is set the way you want, click on the *Install* button. If you want to leave the dialog without making any changes, click on the *Cancel* button.

Saving an Application's Configuration

When you configure an application, it remains configured only until you stop the GEM Desktop unless you use the **Save desktop** command to save the configuration. Be sure to read the description of **Save desktop** in Section 9 before you use the command; it also saves other settings that affect the operation of the Desktop.

The GEM Desktop limits the number of applications you can configure to about fifty.

Removing an Application's Configuration

Removing an application's configuration breaks the association between the application and any document types you specified in the CONFIGURE APPLICATION dialog. Once you remove the configuration, you can't

start the application by opening one of its documents. Furthermore, the GEM Desktop uses the generic set of icons to represent the application and its documents. However, you can still start the application by opening its icon.

Follow these steps to remove an application's configuration:

1. Select the application's icon.
2. Choose the **Configure application** command from the Options Menu.
3. When the CONFIGURE APPLICATION dialog appears, click on the *Remove* button.

Search Paths

A "search path" tells the GEM Desktop where to look for an application when you open a document icon.

Unless you change it, the GEM Desktop goes through a standard search path to find your applications. The standard search path includes the following:

1. the folder or the root directory where the document icon you opened is located (the "current" folder)
2. the GEMAPPS folder on the disk where your GEM software is located
3. the GEMSYS folder on the disk where your GEM software is located
4. the root directory of the disk where your GEM software is located

If you want the GEM Desktop to search other locations before searching the GEMAPPS and GEMSYS folders, you can insert a DOS **Path** command in your AUTOEXEC.BAT or GEM.BAT document. Refer to your DOS operating system manuals for complete instructions.

Desk Accessories

Desk accessories are a special type of application. The GEM Desktop comes equipped with clock, calculator, and print spooler desk accessories. Other desk accessories are available from Digital Research and other software development companies.

Desk accessories are unique because you can run them at the same time you're running other GEM applications. For example, if you're using GEM Draw Plus and want to make some calculations for your picture, you can use the calculator desk accessory without leaving the GEM Draw Plus application.

Using Desk Accessories

You start every desk accessory the same way—by choosing its name from the DESKTOP Menu.

(To start a desk accessory from a GEM application, you make your choice from a different menu, although the menu is always located in the same place as the DESKTOP Menu. See the application's manual for details.)

Desk accessories appear in their own window on the GEM Desktop. All desk accessory windows have a title bar and a close box.

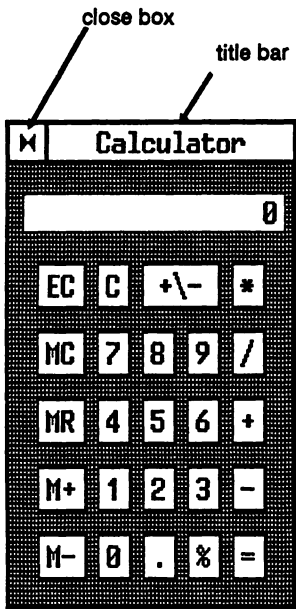
If you click in a Desktop window while a desk accessory is on your screen, the accessory's title bar dims and the accessory goes behind the Desktop windows. If you click on the visible part of the accessory, it comes back in front of the windows and is active again.

It is possible for a desk accessory to be entirely covered by a Desktop window. If this happens, choose the accessory again from the DESKTOP Menu to bring its window back on top of the Desktop windows.

You can use the accessory's title bar (while the accessory is active) to drag it to a different location.

If you are using several desk accessories at the same time, only one can be active. To put an accessory away, click on its close box.

Calculator



The GEM Desktop calculator resembles a standard calculator.

You “press” the calculator’s keys with the mouse pointer or keyboard keys in the following ways:

- Click on any of the keys with the mouse button.
- Enter numbers using your keyboard’s standard number keys or the numeric keypad.

If typing on the numeric keypad moves the pointer rather than entering numbers, press the Ctrl key to take the keypad out of its cursor control function. If you still can’t enter numbers, press the Num Lock key.

You can use the keyboard keys for all remaining functions. For example, you can either click on the “+” key or type the “+” character. Similarly, you can either click on the “M+” key or type the “M” and “+” characters.

The “+\-” key on the calculator changes the sign of the amount in the value window to its complement. The keyboard equivalent for this function is a backslash (\).

Memory Keys

You can use the memory keys (M+, M-, MR, and MC) to add, subtract, recall, and clear values from a memory location in your calculator.

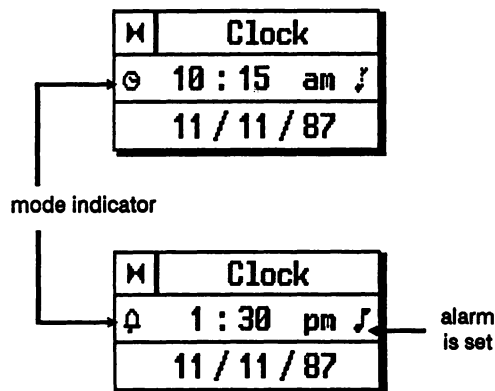
- M+** Adds the amount in the value window to memory. A small “M” appears at the left side of the window to let you know you have stored a result.
- M-** Works like M+ except that it subtracts the value from memory.
- MR** Recalls the present value from memory and displays it in the value window.
- MC** Clears the value from memory. It does not clear the value from the value window, so you can use it in further calculations.

EC and C Keys

- EC** Clears your last entry from the value window. You can continue your current calculations.
- C** Clears the value window and terminates your current calculations.

Clock

When you choose the **Clock** desk accessory, the GEM Desktop displays the first window shown below:



To reset the time or date in the clock, you must change each individual value (hour, minute, month, day, and year) separately.

For example, to reset the hour, begin by clicking on it. Then type two digits to set the hour; that is, type "01" rather than just "1".

Click on "am" or "pm" to toggle between the two.

The clock has an alarm. Follow these steps to set it:

1. Click on the *mode indicator*. It changes from a clock symbol to a bell to let you know the clock is now in alarm mode.
2. Set the time you want the alarm to sound by changing the hour, minute, and "am/pm" indicator as explained above for resetting the time.
3. Click on the musical note at the far right side of the clock to turn the alarm on. When the musical note is dimmed, the alarm is not set.

Print Spooler

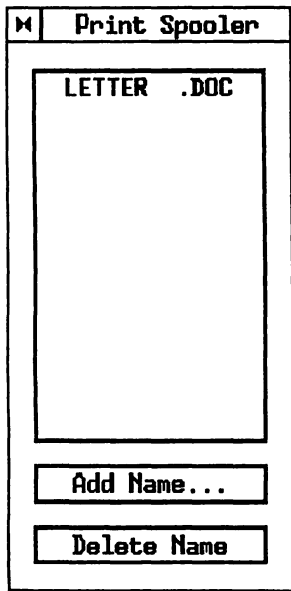
The Print Spooler accessory prints documents *in the background*, that is, while you are using the computer for other purposes.

The Print Spooler uses a *print queue* to start and control background printing jobs. A print queue is an ordered list of the documents waiting to be printed.

With the Print Spooler you can:

- add or delete names in the print queue while documents are printing in the background (see “Print in background” on page 14-8.)
- send a file from the GEM Desktop or a GEM application and begin printing immediately, bypassing GEM Output. However, this method works only with “pure ASCII” files. See “Non-Graphic Document Reproduction” in Section 10 for more information.

Background Printing



If you choose the **Print Spooler** accessory from the GEM Desktop or from a GEM application, the Print Spooler window appears. This window lists the documents currently being printed in the order they are being printed.

Adding a Name to the Print Queue

First click on the **Add Name . . .** button and when the ITEM SELECTOR appears, enter a document name. This name is added to the queue. See page 12-9 for more information.

Printing is suspended while the ITEM SELECTOR is displayed on your screen.

Deleting a Name from the Print Queue

Click on the document name you want to delete, then click on the **Delete Name** button.

Note: If you delete the name of a document that is currently printing, printing stops, the paper advances to the top of the next page, and printing resumes with the next document in the print queue.

You can add and delete names as long as the print spooler is active. To close the print spooler, click on the close box.

Dialogs

Dialogs appear on your screen when the GEM Desktop needs to communicate with you. The dialog conveys information you need or asks you for information the GEM Desktop needs to complete your instructions. Dialogs are of two types:

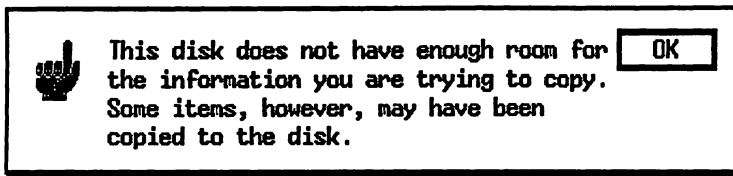
- information
- data entry

Before discussing the dialog types, we'll describe *exit buttons*, a component found in all dialogs.

Exit Buttons

Every dialog has at least one exit button. In its simplest form, an exit button provides a way to remove a dialog from your screen.

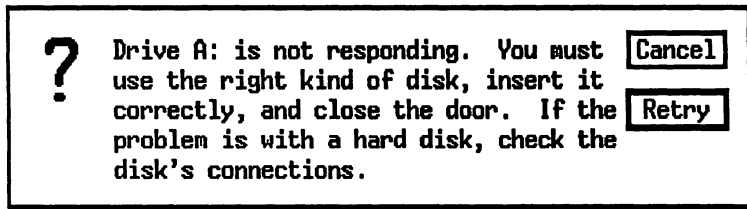
The dialog in the next illustration has one exit button labeled "OK."



After reading the dialog's message, put the pointer on the exit button and click. The dialog disappears and you can resume work where you left off.

Many dialogs contain more than one exit button. Each button may provide a different option as to what to do about the situation.

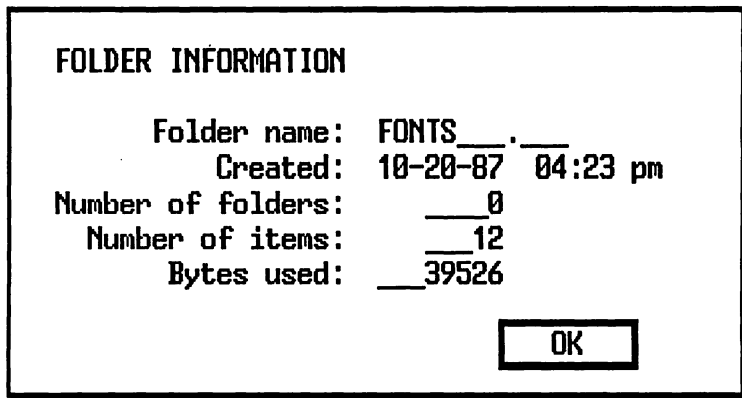
The next dialog illustrated has two exit buttons, "Cancel" and "Retry."



Note that the "Retry" button has a heavier border than the "OK" button. When an exit button has a thick border like this, pressing Enter is the same as clicking on that button.

Information Dialogs

Information dialogs enable the GEM Desktop to obtain or provide information. An example of an information dialog is the one you see when you choose the **Info/Rename** command after selecting a folder icon. This dialog is shown below:



Many information dialogs contain only one exit button. After you read the message, click on the exit button to remove the dialog and continue your work.

Some information dialogs warn you of a problem that has occurred or might occur if you continue what you are doing. Most dialogs of this type contain one of the following icons:



This icon indicates you should make note of the message inside the dialog and then continue with your work.



This icon means that if you continue what you are doing, you could run into a problem. These dialogs usually contain a “Cancel” exit button so you can abort the procedure if necessary.



This icon usually means you should stop what you are doing because an error has occurred.

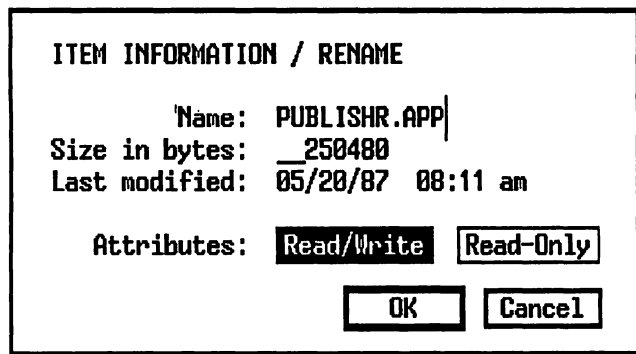
(The foregoing are general descriptions of how these icons are used. In practice, you may see them used differently.)

Data Entry Dialogs

Data entry dialogs appear when the GEM Desktop needs information from you to complete an operation.

Most data entry dialogs contain areas where you type the required information. These areas are called *data entry fields*. The dialog might also ask you to enter the information by clicking on various buttons. (These are not exit buttons, in most cases.) For example, if you select a document icon and then choose the **Info/Rename** command, you see the ITEM INFORMATION / RENAME dialog, as shown on the next page.

The ITEM INFORMATION/RENAME dialog is a combination information and data entry type; it contains some information you can change and some you can't.



ITEM INFORMATION / RENAME

Name: PUBLISHR.APP|

Size in bytes: 250480

Last modified: 05/20/87 08:11 am

Attributes: Read/Write Read-Only

OK Cancel

The "Name" field is a data entry field, as indicated by the text cursor (a vertical bar) at the end of the field. The field contains the name of the icon you selected.

Press the Backspace key to move the text cursor back one space at a time and erase that character. Press the Esc key to erase all characters in the field.

You can then type whatever characters you want in the field and they appear at the text cursor location. (The table at the end of this section explains how to move the text cursor and enter information in a data entry dialog.)

You can enter information only in the field where the text cursor is located. To move the text cursor to a different field, place the pointer anywhere in the field and click. If the text cursor doesn't appear in the field, you cannot enter information.

The next two fields in the dialog ("Size in bytes" and "Last modified") are not data entry fields. You can't change the information they contain.

Next to the "Attributes" message are two buttons labeled "Read/Write" and "Read/Only." These are also data entry fields, because they allow you to enter information about an icon. If you click on the Read/Write button, it tells the GEM Desktop you will allow the document to be read from and written to the disk. If you click on the Read/Only button, the document can be read but information cannot be written into it nor can it be deleted.

Buttons like Read/Write and Read/Only are similar to buttons on a car radio because you can select only one at a time. When you select one, the other “toggles” off and becomes de-selected. You’ll see these types of radio buttons in various other dialogs.

At the bottom of the dialog are the exit buttons. If you make a change in the dialog, click on the OK button (or press Enter) and the GEM Desktop saves your changes. If you don’t make any changes, or if you make changes but don’t want them saved, click on the Cancel button.

The following table lists the keys you can use to move the text cursor and enter information in data entry dialogs.

Key	Effect
←	Moves the text cursor left one character at a time without deleting
→	Moves the text cursor right one character at a time without deleting
↓ or Tab	Places the text cursor in the next data entry field
↑ or Shift-Tab	Places the text cursor in the previous data entry field
Del	Deletes the character to the right of the text cursor
Backspace	Deletes the character to the left of the text cursor
Esc	Erases all characters from the data entry field

Note that except for Esc, a key’s effect is continuous while you keep it pressed.

Menus and Commands

When you place the pointer on one of the titles in the menu bar (File, Options, Arrange, or DESKTOP), a menu drops down. These menus list the commands you can use to make things happen on the GEM Desktop. While a menu is visible, move the pointer through it to highlight each of the commands. To choose a command, highlight the one you want and click.

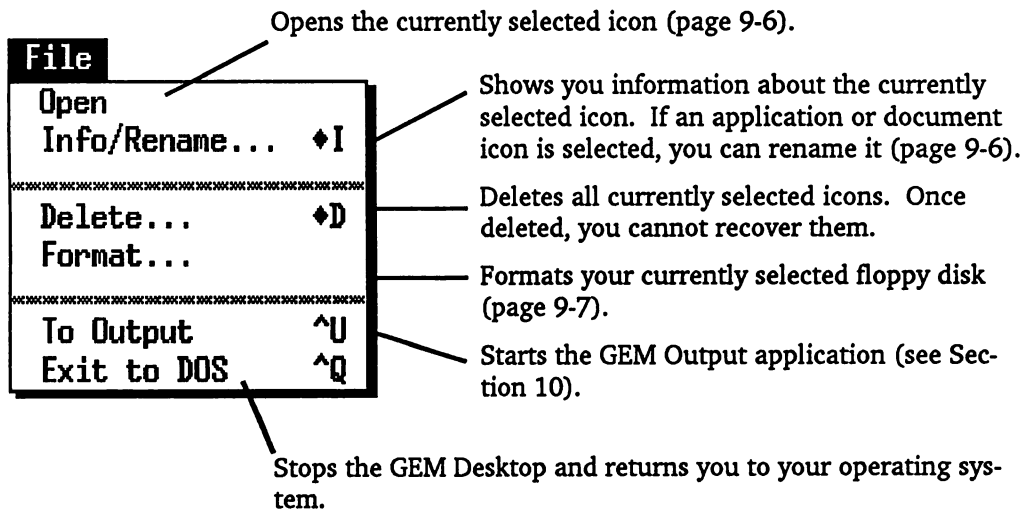
This section describes the commands that appear in each GEM Desktop menu. Pictures of the menus follow with brief descriptions of each command. Page references tell you where to find additional information about a command.

Keyboard Shortcuts

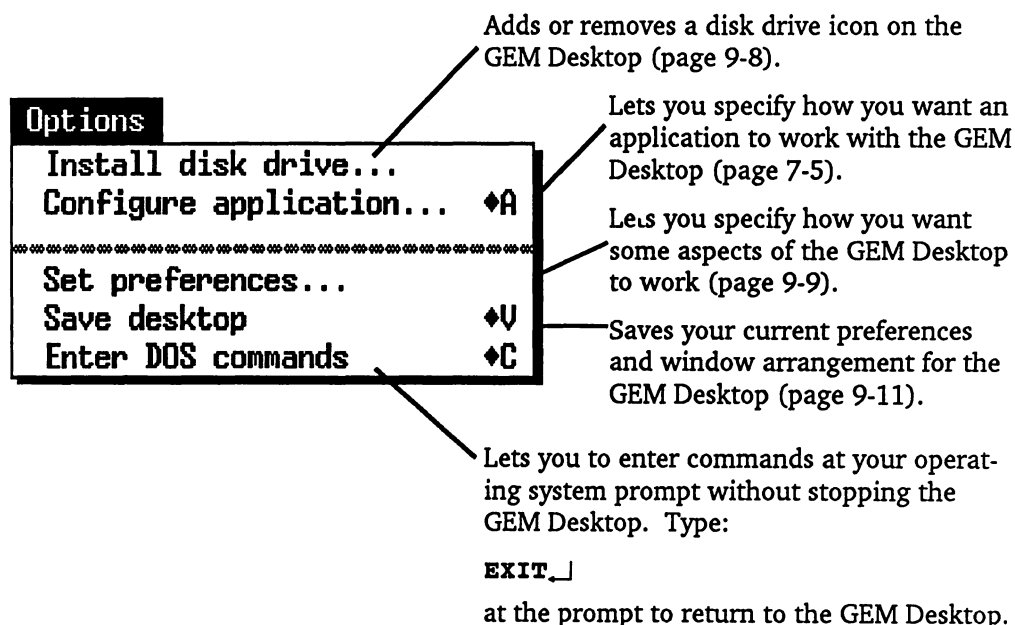
Some menu commands have a keyboard shortcut; typing a certain sequence of keys is the same as using the pointer to display a menu and choosing a particular command.

If a command has a keyboard shortcut, you see the key sequence indicated at the right side of the menu, opposite the command. For example, opposite the **Info/Rename** command in the File Menu is a diamond symbol (◆) followed by the letter "I." The diamond symbol represents your keyboard's Alt key. Holding down the Alt key while typing "I" is the same as displaying the File Menu and choosing **Info/Rename**.

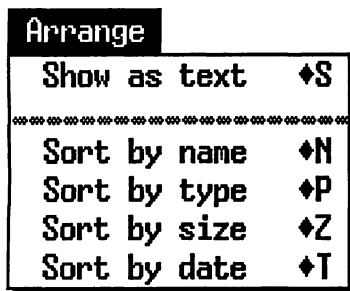
File Menu



Options Menu



Arrange Menu



Arrange	
Show as text	⬢S

Sort by name	⬢N
Sort by type	⬢P
Sort by size	⬢Z
Sort by date	⬢T

This command “toggles” between **Show as text** and **Show as icons**. Use it to specify how you want information to appear in your windows (page 9-12).

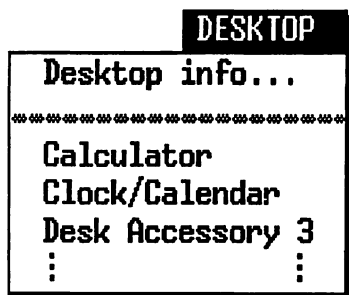
Sorts the information in a window by icon names (page 9-13).

Sorts the information in a window by icon types (page 9-13).

Sorts the information in a window in descending order according to the size of the icon in bytes (page 9-14).

Sorts the information in a window according to the date the icon was created or last changed (page 9-14).

DESKTOP Menu



Shows you information about the GEM Desktop, such as its version number, author names, and copyright information.

Please read "Desk Accessories" in Section 7 for complete details on choosing and using accessories.

File Menu Commands

Open Command

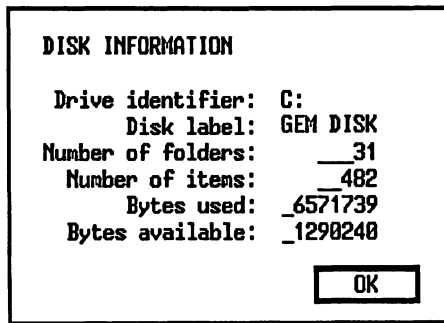
The results of the **Open** command depend on the type of icon that is selected when you choose the command. The following table describes what happens for each type of icon:

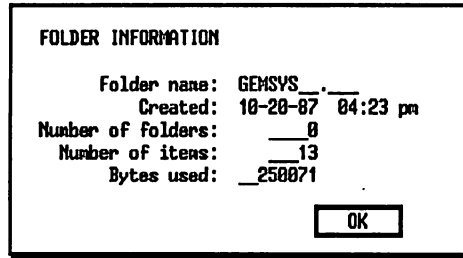
<u>Icon Type</u>	<u>Command Action</u>
Disk icon	Displays the disk's contents in the window.
Folder icon	Displays the folder's contents in the window.
Application icon	Starts the application on your computer.
Document icon	If you have configured the application that created this document, the application starts and opens to the document you've selected. If you have not configured the application, the GEM Desktop displays a dialog that tells you the selected document type is not configured to work with a specific application.

Info/Rename Command

When you choose this command, you see one of three dialogs, depending on what type of icon is currently selected.

Disk icon:



Folder icon:A dialog box titled "FOLDER INFORMATION" with a black border. It contains the following text: "Folder name: GEMSYS", "Created: 10-20-87 04:23 pm", "Number of folders: 0", "Number of items: 13", and "Bytes used: 250071". At the bottom right is an "OK" button.

FOLDER INFORMATION

Folder name: GEMSYS

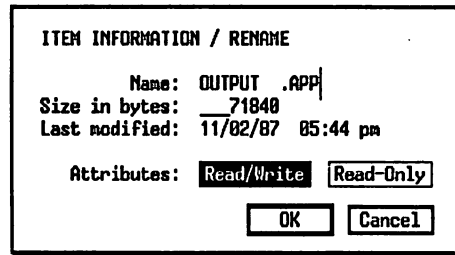
Created: 10-20-87 04:23 pm

Number of folders: 0

Number of items: 13

Bytes used: 250071

OK

Application or
Document icon:A dialog box titled "ITEM INFORMATION / RENAME" with a black border. It contains the following text: "Name: OUTPUT .APP", "Size in bytes: 71840", "Last modified: 11/02/87 05:44 pm", and "Attributes: Read/Write Read-Only". At the bottom are "OK" and "Cancel" buttons.

ITEM INFORMATION / RENAME

Name: OUTPUT .APP

Size in bytes: 71840

Last modified: 11/02/87 05:44 pm

Attributes: Read/Write Read-Only

OK Cancel

Format Command

To format a floppy disk, do the following:

1. Insert the disk you want to format in one of your floppy disk drives.
2. Click on the Desktop icon for the drive that contains the disk you want to format.
3. Choose the **Format** command from the File Menu.

Note: The GEM Desktop does not allow you to format a disk that has a hard disk icon.

Options Menu Commands

Install Disk Drive Command

Use this command to make the disk icons shown on the GEM Desktop exactly match your computer system. Follow these steps to add a new disk drive icon, change an icon's label or drive identifier, or remove an existing icon:

1. Click on one of the existing disk drive icons on the GEM Desktop.
2. Choose the **Install disk drive** command from the Options Menu. The INSTALL DISK DRIVE dialog appears.
3. If you are removing the disk drive icon, click on the "Remove" button; you'll return to the GEM Desktop.
4. Type the letter you want to use to identify the disk drive. Normally, floppy disk drives use the identifying letters "A" and "B." Hard disk drives use the letters "C" and "D."
5. You can also change the icon's label and specify its type as Floppy Disk or Hard Disk using this dialog.
6. When all of the information in the dialog is correct, click on the "Install" button. You return to the GEM Desktop and the new disk drive icon appears.

If you want to make your changes a permanent part of the GEM Desktop, use the **Save desktop** command to save them. Be sure to read about **Save desktop** later in this section before using it—the command saves other settings that affect the operation of the Desktop.

Set Preferences Command

When you select this command, the GEM Desktop displays the SET PREFERENCES dialog:

SET PREFERENCES

Confirm deletes?

Confirm copies?

Confirm overwrites?

Double-click speed:

To drop down menus:

Sound effects:

Time format:

Date format:

Click on the preferences you want as explained below:

**Confirm
deletes?**

“Yes” tells the GEM Desktop to always display the DELETE FOLDERS / ITEMS dialog when you do a delete operation. “No” tells the GEM Desktop to bypass the dialog and begin the delete operation immediately without waiting for your confirmation.

**Confirm
copies?**

Same as “Confirm deletes?” except that it pertains to copy operations.

**Confirm
overwrites**

“Yes” tells the GEM Desktop to always display the NAME CONFLICT DURING COPY dialog when the copy operation you are about to perform will cause an existing document to be overwritten. This setting warns you that the information in a previous version of a document may be lost if you continue with the copy operation.

If you select “No,” the dialog is not displayed and the copy operation is performed without your confirmation.

**Double-click
speed**

Sets a relative speed for how quickly you must double-click the mouse button.

**To drop down
menus**

Select “Click” if you want the GEM Desktop menus to drop down from the menu bar only when you place the pointer on a menu name and click the mouse button.

Select “No click” if you want the menus to drop down when the pointer touches the menus’ names. This is the standard or “default” setting.

Sound effects

“On” causes the GEM Desktop to sound the audible beeper on your system under certain conditions. “Off” suppresses the audible beeper in all cases.

Time format

The “12 hour” preference displays time in an am/pm format; for example, 3:00 am or 3:00 pm. The “24 hour” preference displays time in a military or international format; for example, 0300 or 1500 hours.

Date format

This preference is for internationalization of dates. You can display the date in the format MM/DD/YY (02/14/86) or YY/MM/DD (86/02/14).

After setting the preferences the way you want, click on OK to return to the GEM Desktop. Your preferences take effect immediately and remain so until you quit the GEM Desktop. If you don't make any changes or do not want to save those you have made, click on the Cancel button.

If you want to make your preferences a permanent part of the GEM Desktop (that is, so they take effect every time you start the Desktop), use the **Save desktop** command to save them. However, read the following description of the command before using it because it also does other things.

Save Desktop Command

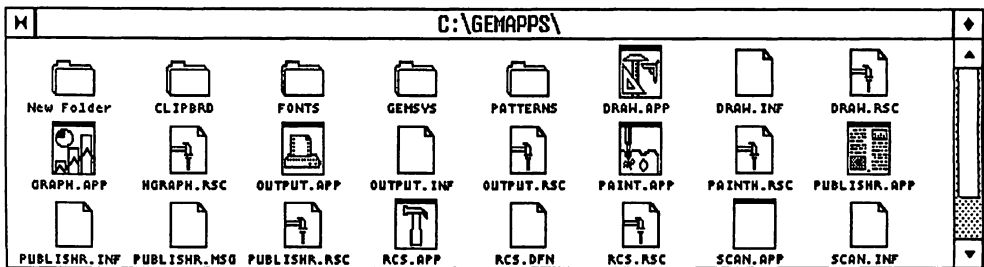
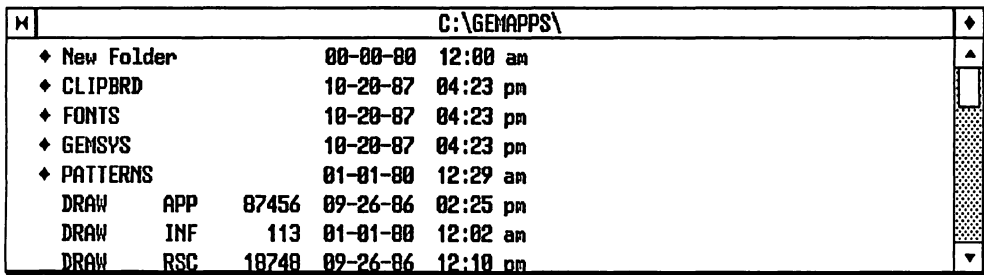
This command tells the GEM Desktop to remember how you currently have the Desktop set up to operate, and to always start the Desktop as you now have it. You can use the command at any time and it remembers the following Desktop characteristics:

- the current size of the Desktop windows
- the object currently opened into each Desktop window; for example, if one of the windows is displaying the contents of disk drive A when you save the Desktop, it displays the contents of that drive every time you start the GEM Desktop, assuming there is a disk in the drive
- the way you currently have any applications configured (see “Configuring an Application” on page 7-5 for details)
- the current arrangement of disk drive icons on the GEM Desktop (see the description of the **Install disk drive** command on page 9-8 for more information)
- your current preference settings (see the description of the **Set preferences** command immediately preceding this command description)

Arrange Menu Commands

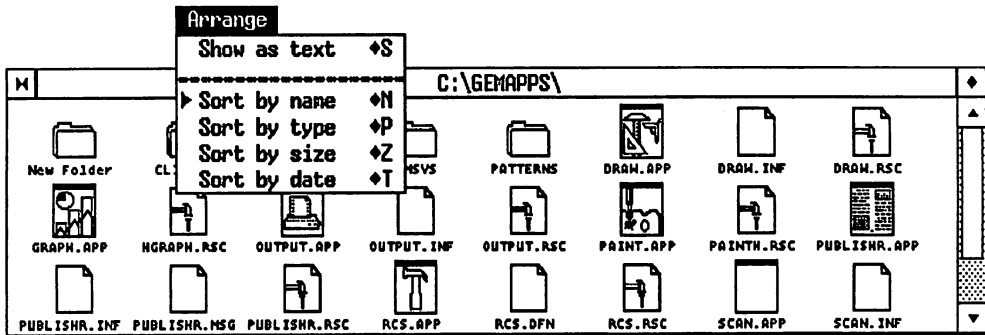
Show as Text/Icons Command

You can display window contents in text form as well as in icon form. The text display provides additional information about the icons in the window. The following illustrations show the differences in the two types of displays:



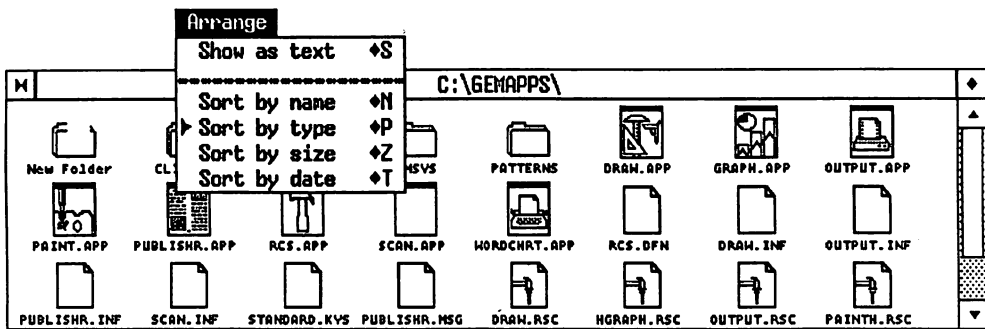
Sort by Name Command

This command arranges the icons in each window by their names.



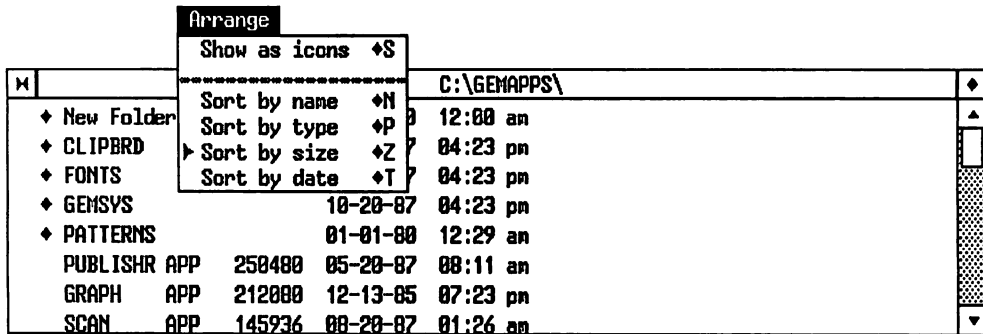
Sort by Type Command

This command arranges the icons in each window by their types.



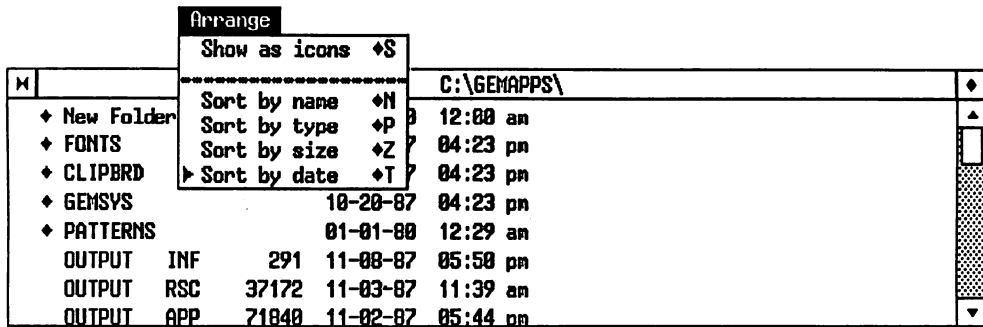
Sort by Size Command

This command arranges the files in each window by their size in bytes. The largest files are listed first.



Sort by Date Command

This command arranges the files in each window according to the date they were created or last modified. Files with the most recent dates appear at the beginning of the list.



GEM Output Overview

GEM Output is a versatile application that gives you control over how your documents appear on your printer, plotter, screen, or other output device. The output list feature organizes separate documents or graphics into a sequence that you can save as a file—useful for demonstrations and presentations. GEM Output allows you additional control over the placement of text or graphics on the screen or on the page. You can also redirect your output and capture it in a file which you can transport to another system or send over a network for production on a remote device.



OUTPUT.APP

GEM Output is supplied under the name OUTPUT.APP. In the GEM Desktop, it's represented by the icon shown here. The installation program GEM Setup places OUTPUT.APP in the GEMAPPS folder on either your hard disk or your GEM DESKTOP floppy disk. GEM Output is ready to use as soon as you complete GEM Setup. See the *GEM/3 Desktop Installation Guide* for more information.

Output Processing Modes

You can run GEM Output in either *Batch* or *Auto Display* mode.

Batch Mode

In this mode, you assemble a group of documents in the form of a list. The list can contain 1-36 document names. GEM Output prints or displays each document in your list on the device you specify. Section 12 explains how to save output lists.

Auto Display Mode

In Auto Display Mode, you can produce one or more documents without placing their names in a list. This is a “shortcut” to GEM Output because as soon as you start, your documents are sent to the output device.

Note: The instructions in Sections 11 through 14 assume you’re running GEM Output in Batch Mode.

When you run GEM Output in Auto Display Mode, it produces your document(s) and then returns to where you started. Auto Display Mode is used differently, depending on the application:

- GEM Desktop Select those documents you want to produce from your Desktop before you start GEM Output. (See “Preselecting Documents” in Section 12.)
- GEM Draw Plus GEM Output automatically produces the picture in your current drawing window. If you have two windows open, it produces both pictures.
- Other GEM applications
GEM Output produces only the document in the active window. Before starting GEM Output in Auto Display Mode, be sure to save your document because GEM Output always uses your most recently saved version.

Here's how you set Auto Display Mode:

1. Start GEM Output from the GEM Desktop as explained in Section 11, "Starting and Using GEM Output." Do not select any documents at this time. When the GEM Output screen appears, display the Global Menu and choose the **Global** command.
2. When the GLOBAL PREFERENCES dialog appears, click on the "On" button following "Auto display." Then click on "OK."
3. Click on one of the device icons on the right side of the screen to indicate where you want to produce your document(s).
4. From the Global Menu, choose on the **Save Preferences** command.
5. Display the File Menu and choose the **Quit** command to return to the GEM Desktop.

To turn Auto Display Mode off and return to Batch Mode, follow the preceding steps again except click on the "Off" button following "Auto display." Then go to the Global Menu and click on "Save Preferences."

Types of Documents You Can Print or Display

GEM Output can be used for producing graphic documents or non-graphic documents.

The table on the next page lists the document types you can and cannot use with GEM Output.

GEM Application	Can be used with GEM Output?	
	Yes	No
GEM Draw Plus	GEM	BAK
GEM Graph	GEM	GRF
GEM Paint	IMG/GEM*	
GEM Desktop	GMP	GWD GW\$
Publisher	ASC AS\$	STL ST\$
GEM WordChart	GEM	WCH
GEM Write	OUT	DOC
GEM First Word Plus	OUT	DOC MRG SUP

(* - When producing GEM Paint documents with GEM Output, both the .IMG and .GEM files must be in the same folder.)

Non-Graphic Document Reproduction

Almost all DOS applications produce "ASCII-type" documents. However, some documents are "pure ASCII" whereas others contain application-specific control characters.

You can use GEM Output to print or display documents that contain pure ASCII information. When you produce these documents on your screen, GEM Output displays one screen of information at a time. Press any key to display subsequent screens. Press the Escape key to stop the display.

Producing a document that contains control characters yields unpredictable results. Therefore, you should not use GEM Output to produce a document of this type. Instead, use the application program that created the document to produce it. Two exceptions to this are GEM Write and GEM First Word Plus.

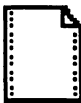
Starting and Using GEM Output

This section describes how to start GEM Output and provides an overview on how to print documents.

Starting GEM Output

There are several ways to start GEM Output:

- The GEM Desktop File Menu contains the **To Output** command. You can start GEM Output by choosing this command.
- You can also start GEM Output from most GEM applications programs. For example, if you're using GEM Paint, display the File Menu and choose the **To Output** command. When you start GEM Output from a GEM application, you have the option of returning either to that application or to the GEM Desktop.
- Because GEM Output is a GEM application, you can load it by opening one of its document icons. For example, if you create a list of document names and save it as DEMO.LIS, you'll see it on the GEM Desktop as the icon shown below.



DEMO.LIS

If you double click on this icon, you'll load GEM Output and it can begin producing the documents named in DEMO.LIS.

Printing a Document

This section contains a step-by-step overview on how to print a document with GEM Output. This overview is not intended for use as a tutorial—its purpose is to demonstrate the basic steps required to produce your documents.

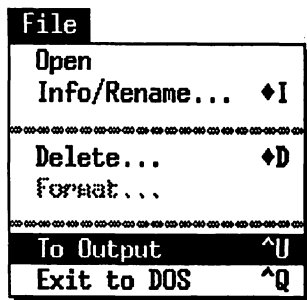
Step 1: Select Document(s) to Print

Suppose you've created two GEM Draw Plus pictures named CAR.GEM and TRUCK.GEM and you now want to produce them on your printer.

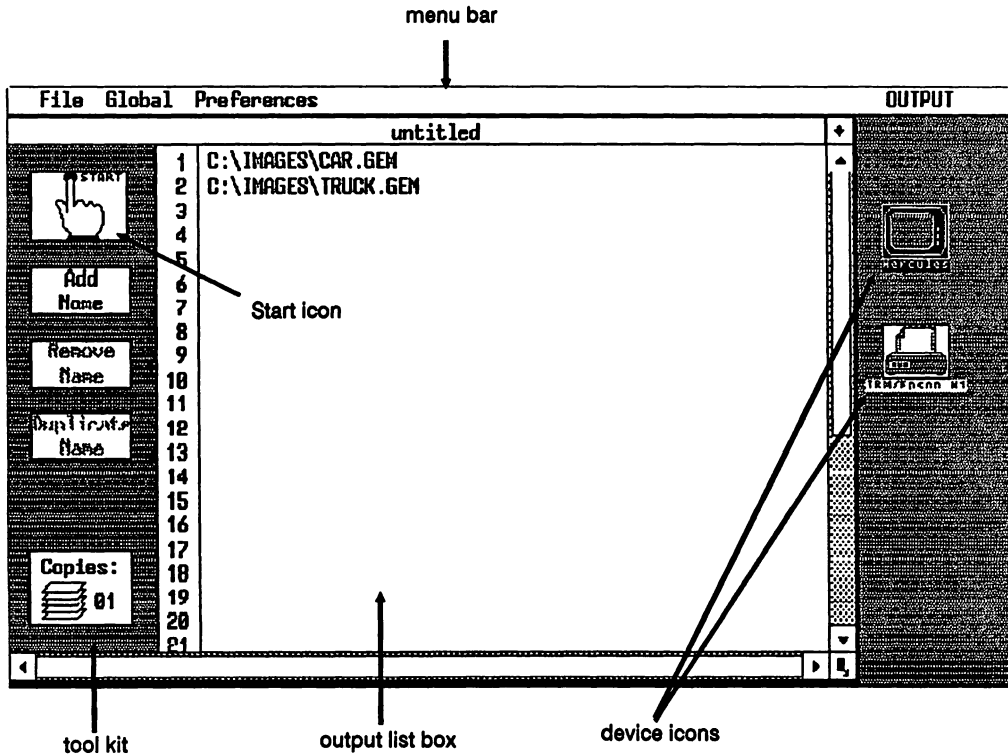
While the GEM Desktop is on your screen, select both the CAR.GEM and TRUCK.GEM icons by Shift-clicking -- hold down the shift key while clicking on each icon.

Step 2: Start GEM Output

Display the GEM Desktop File Menu and click on the **To Output** command.



GEM Output starts; its screen looks like the one shown on the following page.



Like the GEM Desktop screen, at the top of the GEM Output screen is the *menu bar*. It lists the titles of the GEM Output menus: File, Global, Preferences, and OUTPUT.

The left side of the screen contains the *tool kit*. GEM Output tools are described in Section 12.

The center portion of the screen is the *output list box*. It contains the names of the documents you selected from the GEM Desktop in Step 1: CAR.GEM and TRUCK.GEM.

On the right side of the screen are icons that represent the output devices attached to your computer. Typically, a screen and a printer are shown. There might be more icons shown, depending on your system's configuration. Beneath each device icon is the name of that device. In the example shown above, the name "Hercules" is displayed beneath the screen icon; this indicates that a Hercules Graphics Card™ is installed in the computer.

GEM Output highlights the default icon; this is the device it will use unless you select a different one. Click on a different icon to select its device. Use **Save Preferences** from the Global Menu to make that device the default.

Step 3: Start Printing

To print the two pictures, click on the "Start" icon (the keyboard shortcut is Alt-S). This dialog appears to indicate which document is printing:

Files processed: 1 of 2

Current file: CAR.GEM

(Press  to stop at end of current page.)

The dialog disappears from your screen when printing is completed.

Step 4: Return to GEM Desktop

Display the File Menu and choose **Quit** or use the keyboard shortcut (Ctrl-Q) to return to the GEM Desktop.

You now know the basic steps for printing using GEM Output. Next you'll learn about other features and other ways to use GEM Output in the following sections.

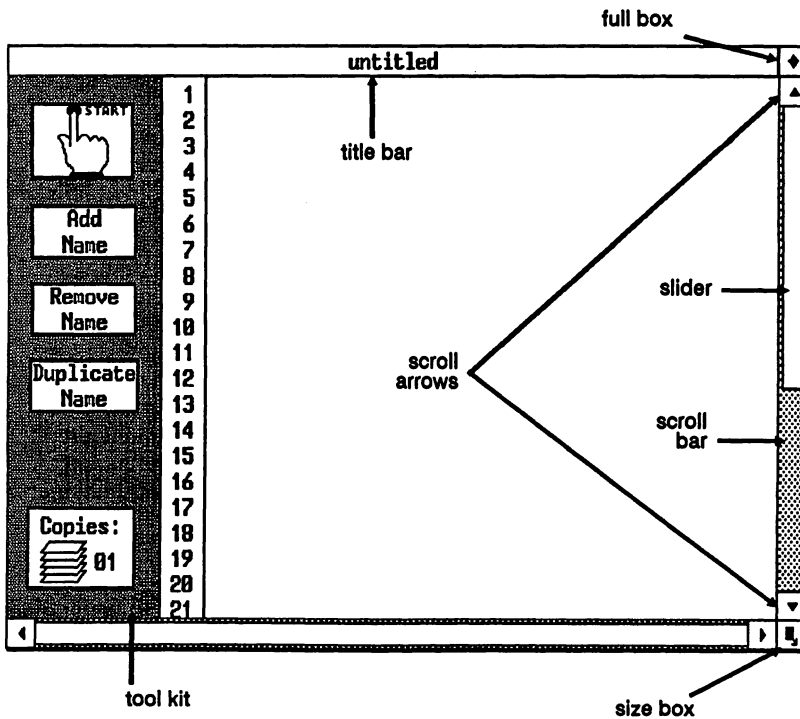
Output Lists

This section explains how to create, edit, and use *output lists* to print or display your documents. It contains detailed screen and dialog information.

Output lists let you print or display multiple documents in the order you want. For instance, chapters in a book or sections in a report might make up an output list. You can save these lists and revise them.

Output List Box

When you start GEM Output, it displays the *output list box* on your screen, as shown below:



The output list box, like a Desktop window, contains a title bar, full box, scroll bar, slider, and scroll arrows. It also contains a *size box* and *tool kit icons*.

Size Box



Use the size box to change the dimensions of the output list box. This is useful when:

- the document names in your output list extend beyond the right edge of the output list box
- you want to make room on the screen for a desk accessory
- a desk accessory disappears behind the output list box and you want to bring it back in view

Place the pointer on the size box and drag in any direction. As you drag, you'll see the outline of a rectangle that previews the new dimensions of the output list box. When the rectangle is the size and shape you want the new list box to be, release the mouse button.

Tool Kit Icons

The tool kit icons and their keyboard shortcuts are briefly described below. Please refer to pages 12-5 through 12-7 for more details.



Click on the **START** icon to begin producing the documents whose file names are listed in the output list box. GEM Output produces these documents on the output device whose icon is highlighted. To use a different output device, click on its icon before selecting Start. The keyboard shortcut for **START** is Alt-S: hold down the Alt key and press the S key.



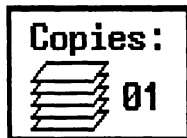
Click on this icon to add one or more document names to an output list. You can add document names to an empty list or to an existing list. The ITEM SELECTOR dialog appears, from which you select the documents to be added (see page 12-9). The keyboard shortcut for Add Name is Alt-A.



To remove a document name from the output list, select its name and then click on this icon. You can select more than one document to be removed with the drag or Shift-click techniques. Remove Name deletes the document only from the output list, it does not affect the document itself. The keyboard shortcut for Remove Name is Alt-D.



To produce more than one copy of a document, duplicate the document name in the output list as many times as needed. You do this by selecting the name to be duplicated and then clicking on this icon. Use the drag or Shift-click technique to select multiple document names for duplication. The keyboard shortcut for Duplicate Name is Alt-C.



To tell GEM Output to produce more than one copy of the documents in the output list, place the pointer near the number 01 in the Copies icon and click. When GEM Output displays the text cursor behind the number, press the Backspace key or the Escape key. This erases the current number so that you can type the number of copies you want GEM Output to produce. You can enter any number from 1 to 99.

GEM Output sounds a tone and returns the copies setting to 01 when:

- Two minutes have elapsed since it processed the last document
- Two minutes have elapsed since you moved the pointer or issued a command

Rules for Selecting Documents

Keep the following rules in mind when selecting document names for an output list:

- You can combine documents from different folders (subdirectories) in the same output list.
- You can also combine documents from different disks in the same output list. However, you must have all disks available when producing the documents and you must specify which disk each document is on. For example, some documents can be on your hard disk and others on a floppy disk so long as the floppy disk is inserted in a disk drive when you create the output list and start the production process. Also, your documents can be on two separate floppy disks so long as both floppies are inserted in disk drives. However, you cannot swap floppy disks while running GEM Output.
- GEM Output does not produce certain document types. See “Types of Documents You Can Print or Display” on page 10-3.

Preselecting Documents

You can “preselect” the document(s) you want in your output list by selecting them from the GEM Desktop before you choose the **To Output** command from the Desktop’s File Menu. When the output list appears, it contains the names of the documents you preselected.

You can preselect up to ten documents at a time, depending on the combined number of characters in the folder and document names. The maximum number of characters GEM Output can accept is 128.

Another way to preselect a document for an output list is to start GEM Output directly from a GEM application. The application passes the name of your current document to GEM Output.

Adding Document Names

You can add one or more document names to an empty ITEM SELECTOR or to an existing list. (To start with an empty list, click on the **New** command from the GEM Output File Menu.)

To add one or more names, either click on the Add Name icon in the tool kit or hold down the Alt key and press the A key. The ITEM SELECTOR dialog appears on your screen (see page 12-9). Use the ITEM SELECTOR to select the document(s) you want to add to your output list.

To add a name to the list from the ITEM SELECTOR dialog:

- Double-click on the document's name in the directory window. This is the fastest method.
- Click on the name when it appears in the directory window. The name appears on the line following "Selection." Click on the OK button or press the Enter key.
- Type the document name on the Selection line. Click on the OK button or press the Enter key.

To add more names, repeat the procedure as many times as necessary.

To add all of the documents contained in the ITEM SELECTOR to your list (up to a maximum of 36), leave the Selection line empty and click on the OK button or press the Enter key.

Note: When the ITEM SELECTOR appears, it covers a portion of the output list box. Therefore, you should make note of the document names you already have in the box before you click on the Add Name icon.

Removing Document Names

To remove a name from the output list:

1. Click on the name you want to remove. To remove more than one name, use the drag or Shift-click technique.
2. Click on the Remove Name icon in the tool kit or hold down the Alt key and press the D key.

Duplicating Document Names

To duplicate document names already in an output list:

1. Select the name you want to duplicate. If you want to duplicate multiple names, use the drag or Shift-click technique.
2. Click on the Duplicate Name icon in the tool kit or hold down the Alt key and press the C key.

Moving Document Names

To move a document name to a different place in the output list, select it, then drag it to the desired location. When you release the mouse button, GEM Output inserts the name and rearranges the list, if necessary. You can move only one name at a time.

Saving an Output List

You may have an output list that includes a sequence of documents and graphics to be used in a presentation. You might want to save this sequence and perhaps modify it and run it again for a different audience.

To save a new output list:

1. Choose **Save as** from the GEM Output File Menu. The ITEM SELECTOR dialog appears.
2. Type a name for your list (up to eight characters) and add the file-name extension .LIS (it's automatically supplied if you forget). The name you type appears on the Selection line.
3. Click on **OK** or press the ENTER key to save your list.

Note that the File Menu also contains a **Save** command. Use this command to save an existing output list after you make changes to it.

Opening Output Lists

When you open an output list, GEM Output places its document names in the output list box. You can use the list as is—you can also add, duplicate, move, or remove names from it. The title bar shows you the name and location of the output list.

GEM Output allows you to open only *LIS-type* documents, that is, files with the .LIS filename extension.

Here are two ways to open an output list:

- Double-click on the output list icon from within the Desktop—GEM Output starts automatically.
- Choose the **Open** command from the File Menu after you've started GEM Output.

When you use the latter method, the ITEM SELECTOR dialog appears—it shows you the LIS-type documents in your current disk folder.

If you open an existing list, make changes to it, and then want to save both the original and revised versions, select the **Save as** command from the File Menu to preserve the revised version under a different name. Your original version remains unchanged.

Starting Production

If you want to change either the global or device preferences, do so before completing the following steps. (These preferences are described in Section 14.)

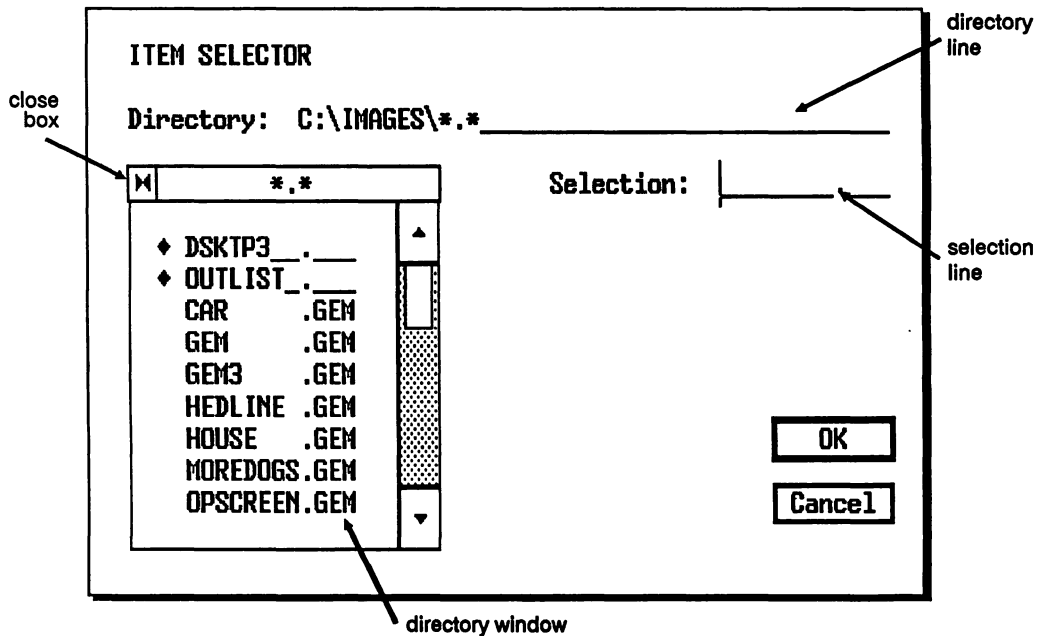
When your output list is complete:

1. Click on the icon representing the device on which you want to produce your document(s). If the correct icon is already highlighted, skip this step.
2. Click on the Start icon in the tool kit or (hold down the Alt key and press the S key.)

ITEM SELECTOR Dialog

The ITEM SELECTOR dialog, shown on the next page, is used to:

- add one or more document names to your output list
- save an output list on disk
- retrieve an output list



Directory Line

The *directory line* shows the disk and folders that contain the items listed in the *directory window*. You can change the information on this line to:

- choose the folder that contains the document(s) you want to add to your output list
- name a folder in which you want to save an output list
- name a folder from which you want to retrieve an output list

To change the information on the directory line, place the pointer anywhere on the line and click. The text cursor appears after the last character on the line. Press the Backspace key to erase individual characters or press the Esc key to erase the entire line. Type the name of the disk and folder or folders you want to use.

After you enter the information on the directory line, click inside the directory window or press the Enter key to update the window with a list of items in that folder.

Wildcard Characters

You can use asterisks (*) or question marks (?) in the directory line as “wildcard” characters. Question marks replace individual characters; asterisks replace entire filenames. For example, “C:\PICTURES*.GEM” means all GEM-type documents in a folder named PICTURES on disk drive C.

You can also combine wildcard expressions in the directory line as follows:

C:*.GEM, *.OUT, *.GMP

In this case, you must separate each element with a comma.

Refer to your operating system manual for more information about wildcard characters.

Close Box

You can also change the information in the directory line by clicking on the directory window’s close box. Each time you click on the close box, the directory window displays the contents of the next higher level in the directory path (back toward the root directory). For example, if the directory line reads “C:\IMAGES*.IMG” and you click on the close box, this is what happens:

- The directory line changes to “C:*.IMG.”
- The directory window lists the folders in the root directory, plus documents with the .IMG type. Folders are identified with a diamond character (♦).

Selection Line

You can enter the following information on the selection line:

- the name of a document you want in your output list
- the name for an output list you want to save on disk
- the name of an output list you want to retrieve from disk

Directory Window

The directory window lists the folders and items in the location specified on the directory line. The window can display nine folders and document names at a time. Use the scroll bar, arrows, and slider to scroll through the window if it contains more than nine entries.

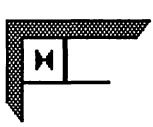
Use any of the following methods to select an item from the directory window:

- Double-click on the document or output list name in the directory window—this is the fastest method.
- Click on the document or output list name in the directory window. The name appears on the selection line, as does the text cursor. Click on the “OK” button or press Enter.
- Click on the selection line and the text cursor appears at the beginning of the line. Type the name of the document or output list, then click on the “OK” button or press Enter. (The name need not be displayed in the directory window.)

Folder Indicators

Names listed in the directory window with a diamond (♦) to the left are folders (“subdirectories” in DOS). Click on a folder’s name to display its contents.

Directory Window Close Box



The directory window has a close box in the upper left corner. Click on the close box to move back to the previous folder.

If there is no previous folder, the directory window shows you the drive letter(s) for your computer. Click on the drive letter to display the contents of its root directory in the directory window.

GEM Output Menus and Commands

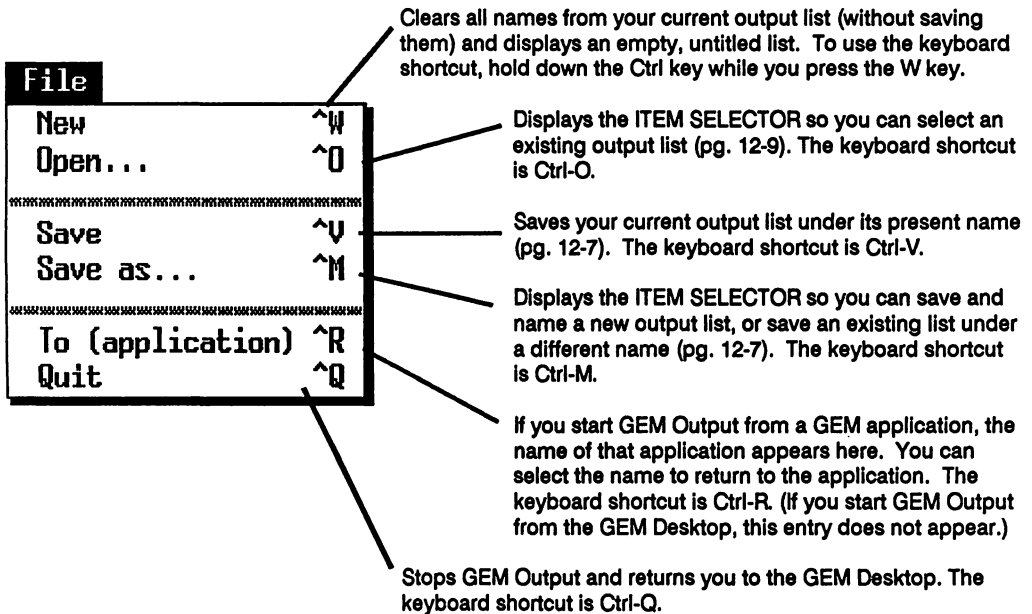
This section illustrates and describes the GEM Output menus and commands. Commands descriptions include the keyboard shortcuts. Page references tell you where to find more information.

When you place the pointer on one of the titles in the menu bar, a menu drops down. The entries in each menu are the commands that you use in GEM Output. To select a command, touch the pointer to that entry so that it becomes highlighted and click the mouse button.

To use a command's keyboard shortcut, hold down the first key indicated while you press the second. For instance, the keyboard shortcut for the **New** command in the File Menu (shown on the next page) is ^W: hold down the Ctrl key while you press the W key.

Function keys are exceptions; they are single keystrokes. For example, the shortcut for the **Global** command from the Global Menu is F2—function key number 2.

GEM Output File Menu Commands



Global Menu Commands

Global

Shortcuts...

Global...

Save preferences

F1

F2

⇧V

Displays a two-part dialog explaining certain shortcuts available in GEM Output. The keyboard shortcut is F1.

Sets certain global preferences in GEM Output. The keyboard shortcut is F2.

Saves global and device preferences as currently set. The keyboard shortcut is Alt-V.

Preferences Menu Commands

Screen Preferences

Preferences

Screen...

F3

Controls how long images are displayed on your screen (pg. 14-3). The keyboard shortcut is F3.

Printer/Plotter Preferences

Note: Select either the printer or plotter device icon before choosing one of the commands in this menu.

Preferences	
Page...	F4
Paper size...	F5
Paper tray...	F6
File redirect...	F7

Displays a dialog so you can choose page output settings (pg. 14-5). The keyboard shortcut is F4.

Displays a dialog so you can select the correct size paper for your output (pg. 14-6). The keyboard shortcut is F5.

Displays a dialog so you can select the correct paper tray or paper feed setting for your printer (pg. 14-7). The keyboard shortcut is F6.

Displays a dialog that lets you send your output to another file or to a remote printer (pg. 14-8). The keyboard shortcut is F7.

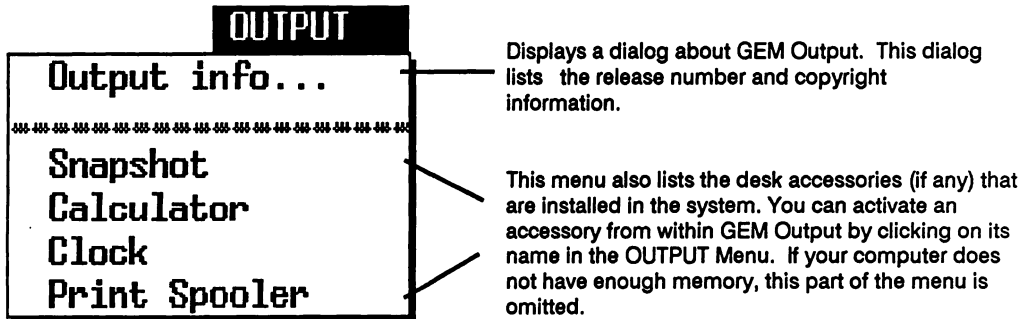
Camera Preferences

Preferences	
Film...	F8
Color...	F9

Displays a dialog (pg. 14-9) that lists the types of film suitable for use with GEM Output, and contains a lightness (exposure) scale. The keyboard shortcut is F8.

Displays a dialog (pg. 14-10) that lists an index of color values, basic colors, and an intensity scale for use with GEM Output. The keyboard shortcut is F9.

OUTPUT Menu Commands



Displays a dialog about GEM Output. This dialog lists the release number and copyright information.

This menu also lists the desk accessories (if any) that are installed in the system. You can activate an accessory from within GEM Output by clicking on its name in the OUTPUT Menu. If your computer does not have enough memory, this part of the menu is omitted.

You'll find instructions for using the Snapshot accessory in your *GEM Paint User's Guide*. The Calculator, Clock, and Print Spooler are described in Section 7 of this guide.

Device Preferences

The commands in the Global Menu and Preferences Menu make it possible for you to “customize” GEM Output. The Global Menu commands affect GEM Output as a whole. The Preferences Menu commands affect specific output devices.

Global Menu

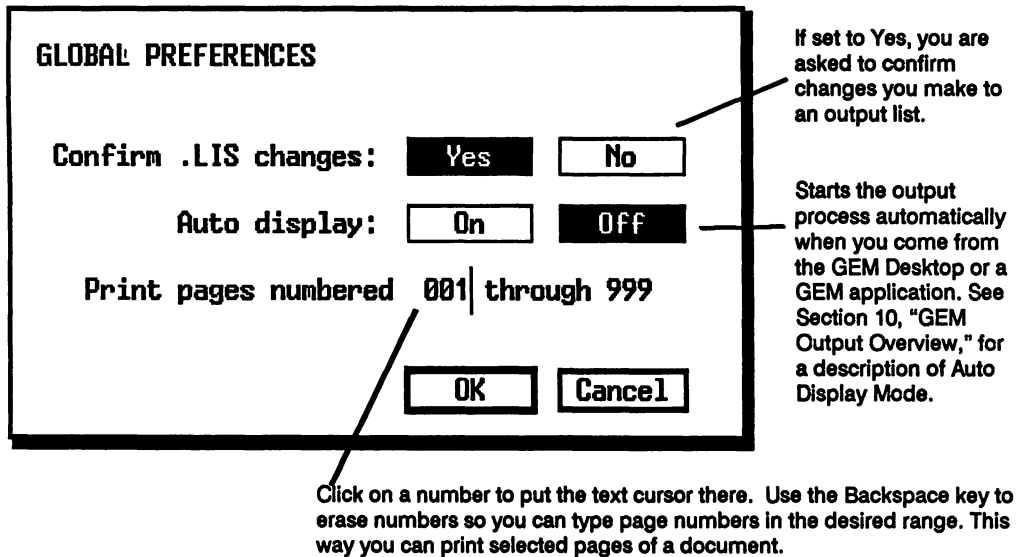
The Global Menu contains the following commands:

- | | |
|-------------------------|--|
| Shortcuts | This command displays a dialog that describes keyboard shortcuts for entering certain commands. |
| Global | This command offers choices that affect your entire system. They are described below, under “GLOBAL PREFERENCES Dialog.” |
| Save Preferences | This command saves the choices you made with the Global command and the commands in the Preferences Menu. |

When you save preferences, they are installed automatically every time you start GEM Output. You can change preferences during a session, but if you do not save them, the new settings are lost when you quit GEM Output or turn off the computer.

GLOBAL PREFERENCES Dialog

Global preferences apply to GEM Output as a whole and are not specific to a particular type of device. When you choose the **Global** command, GEM Output displays the GLOBAL PREFERENCES dialog, shown below.



Preferences Menu

The Preferences Menu allows you to choose how you want your output devices (screen, printer, plotter, etc.) to work with GEM Output. You can choose:

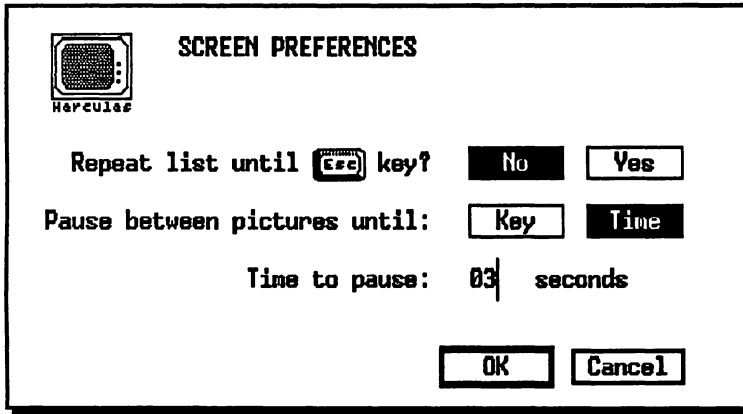
- GEM Output display preference
- paper size/paper tray options
- page layout options
- printer functions
- plotter functions
- camera functions

To display the options available for a device, first select the device by clicking on its icon and then move the pointer to **Preferences** in the menu bar. The menu drops down and the appropriate options are shown for the device that you selected.

Note: Output devices must first be installed with GEM Setup before GEM Output can customize them for you. Once they're installed, you can adjust how your output will look and how it will be produced. See the *GEM/3 Desktop Installation Guide* for instructions on using GEM Setup.

Screen Preferences

The SCREEN PREFERENCES dialog, shown on the next page, can be displayed either by clicking on the **Screen** command in the Preferences Menu or pressing the F3 function key. GEM Output lets you cycle either graphics or text for display purposes. This would typically be used at exhibits or conventions where a presentation could be running unattended for some time.

**Repeat list until Esc key?**

"Yes" means GEM Output continuously cycles through the documents in your output list. You set the time to pause between pages (pictures) by setting the number of seconds below.

Pause between pictures until:

"Key" means that you must press a key or the mouse button to display the next file in the output list. "Time" means that GEM Output will automatically cycle through the output list, displaying each document for the time specified in "Time to pause," described next.

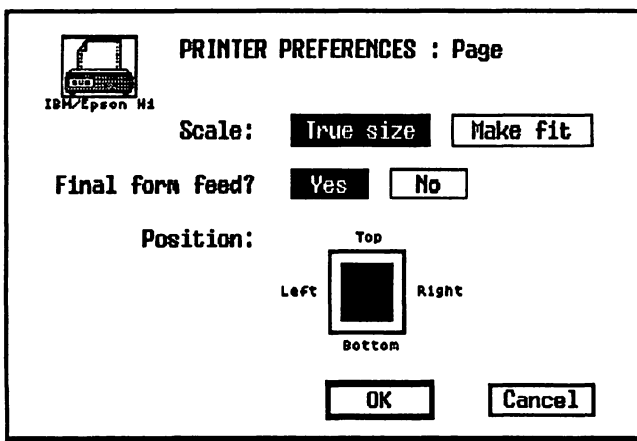
Time to pause: When you click on the number, the text cursor appears. Use the Backspace key to erase the previous number and then type in the number of seconds to pause between document pages.

Note: Press the Escape key to stop the display and return to the main GEM Output screen.

Printer and Plotter Preferences

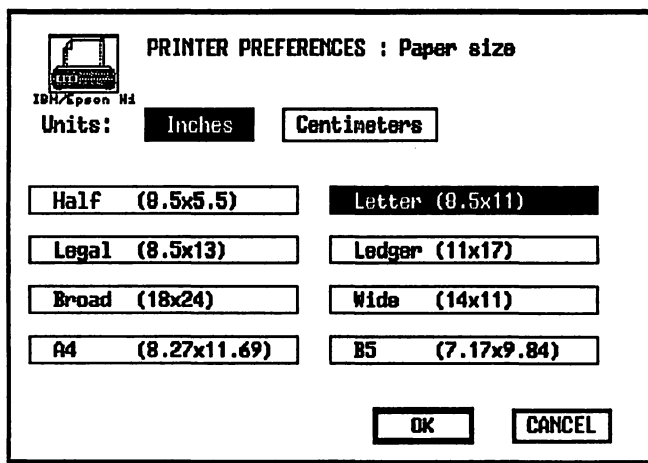
GEM Output uses dialogs so you can set preferences for your printer or plotter's page layout, paper size, paper tray, and file redirection settings. You display these dialogs by clicking on the appropriate command in the Preferences Menu or by pressing the appropriate function key.

Page Preferences



- Scale:** "True size" prints documents in their actual size and scale. "Make fit" scales documents to fit the paper size you select with **Paper Size**.
- Final Form Feed?** Select "Yes" to tell the printer to advance a blank sheet after the last printed page. (This is not an option for plotters and most stacked-paper printers—printers that do not use continuous, "fan-fold" paper.)
- Position:** Position the small black rectangle in the larger rectangle to select the boundaries of printed text on the page.

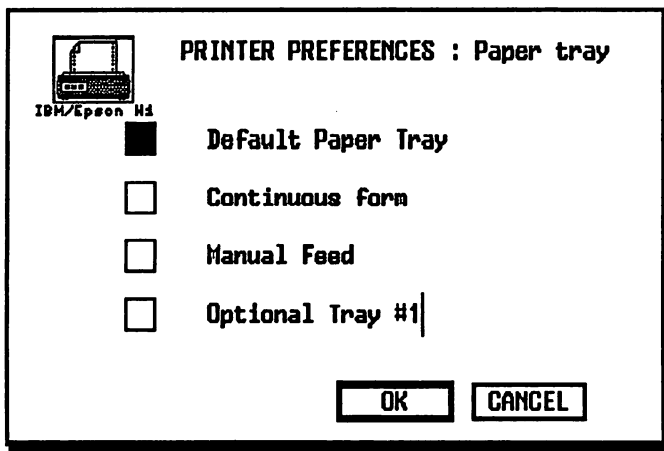
Paper Size Preferences



Units: These buttons let you switch from inches to centimeters in measuring the sheet sizes listed.

Sheet Sizes Popular paper sheet sizes are listed. Click on a specific size to specify the length of your document. For example, if you are printing on legal paper, choosing the "Legal" paper size ensures that text and graphics are positioned correctly on the paper.

Paper Tray Preferences



Default Paper Tray

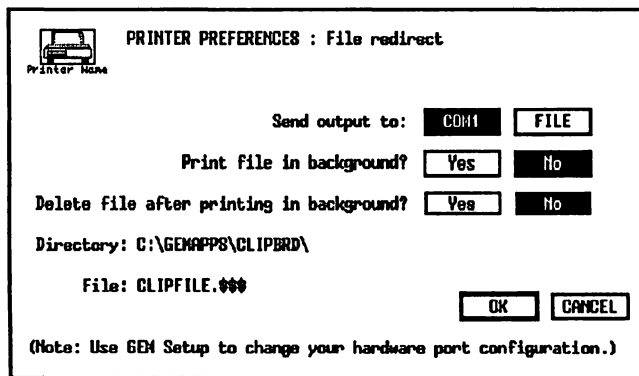
For printers and plotters with one or more paper trays, choose this setting to use the paper tray designated by the printer as the default.

Continuous Form Choose this setting to print documents on continuous form or roll paper.

Manual Feed Choose this setting if your printer or plotter has a manual feed option or if you want it to pause between pages. This option is useful with single-sheet printers and most plotters.

Optional Tray #1 Use this option for printers or plotters with more than one paper tray. To specify a tray, use the Backspace key to erase the current number and then type the new number.

File Redirection Settings



PRINTER PREFERENCES : File redirect

Printer Name

Send output to:

Print file in background?

Delete file after printing in background?

Directory: C:\GEMAPPS\CLIPERD\

File: CLIPFILE.###

(Note: Use GEM Setup to change your hardware port configuration.)

Send output to: Use this option to redirect your output files from one destination to another. For example, instead of sending your output files to your printer port, you can redirect them to a file, which you can then send to a remote printer over a network.

Print file in background: Select "Yes" to work in GEM while printing. If you select "No," you cannot exit GEM Output while printing. (Only parallel printers have this option.)

Delete file after printing in background: Select "Yes" if you want the temporary output file created for each document to be deleted automatically after printing. Select "No" if you want it to be saved. (This option is available only for parallel printers.)

Directory: This is where you can specify a directory in which you want output files saved. Enter the full path name of the directory.

File: Shows the name you assign to files that you create.

Camera Preferences

If you select a camera device icon and then display the Preferences Menu, GEM Output makes the **Film** and **Color** commands available. The dialogs displayed when you choose these commands are described below.

Film

GEM Output displays the CAMERA PREFERENCES: Film dialog when you select the **Film** command. This dialog allows you to specify the type of film you are currently using.

Film Type	Lightness
<input checked="" type="checkbox"/> Polaroid Type 669	-3
<input type="checkbox"/> Polaroid Polachrome	-2
<input type="checkbox"/> Ektachrome - ASA 188	-1
<input type="checkbox"/> Agfachrome - ASA 188	0
<input type="checkbox"/> Fujichrome - ASA 188	+1
<input type="checkbox"/> Reserved for future use	+2
<input type="checkbox"/> Reserved for future use	+3

OK CANCEL

Film Type

Select the film type you are using by clicking on the box next to the film type name. The film types listed in this dialog are device-dependent. Other film types may appear on your system.

Lightness

This setting allows you to vary the exposure of your pictures. The 0 setting is average for most films. Experiment with your own equipment to decide which settings are best for you.

Color

You can change the colors your camera produces by changing the settings in the CAMERA PREFERENCES: Color dialog. Note however, that the results you get depend on many factors in addition to these settings. Film type, speed rating, film age, ambient temperature, and humidity all contribute to color quality.

CAMERA PREFERENCES : Color

Camera Name

Color index: 0 1 2 3 4 5 6 7
8 9 10 11 12 13 14 15

Current Color Setting

Basic color: White Black Red Green Blue Cyan
Yellow Magenta Brown Orange Grey Purple

Intensity: Light 2 3 4 5 6 7 8 9 Dark

Red: 000 %
Green: 000 %
Blue: 000 %

OK CANCEL

Color index:

By clicking on a number, you can identify the color associated with one of the color code numbers used in GEM applications. For example, the default color associated with the number 6 is yellow.

Basic color:

To change the color associated with a selected color index number, click on the color of your choice. For example, you could change color 6 from yellow to blue.

Intensity: To make a color darker or lighter, select a higher or lower intensity value.

You can also change the amount of red, green, or blue in a selected color by changing the percentage "counters" in the lower left corner of the dialog. Use the Backspace key to delete the current setting and enter your new setting. The chart on the following page shows some basic settings and their results.

Red	Green	Blue	Result
100%	0%	0%	Pure Red
0%	0%	100%	Pure Blue
0%	0%	0%	Black
100%	100%	100%	White

You create new colors by specifying percentages of red, green, and blue. However, the existing Basic color and Intensity settings may become irrelevant since they are based on standard values. Also, since cameras and films vary, you may have to experiment to get the exact colors you want.

Installation

This chapter takes you step-by-step through the GEM Setup installation procedures for both hard disk systems and dual floppy disk systems. It describes the results of installation on your system, and explains how to start the GEM Desktop. The chapter ends with a section explaining how to set the commands needed to open the GEM Desktop automatically whenever you start up your computer.

Note: If you make a mistake during GEM Setup, this will not harm your system. You can correct it by rerunning GEM Setup, which you can run as many times as you need.

Starting GEM Setup


If you intend to run the GEM Desktop from floppy disks, you need two blank, formatted double-density (360K) disks or one blank formatted high-density (720K) disk. Your computer must be equipped with a high-density disk drive to use high-density disks. If you are unsure about the type of disk drive or other hardware you have, refer to your hardware documentation or consult a systems specialist.

To run GEM Setup, follow these steps:

1. Start your computer to DOS.
2. Insert the disk labeled GEM SYSTEM MASTER into drive A.
3. Logon to drive A (floppy disk drive). The A:\ prompt is displayed.
4. Type this command:

GEMSETUP ↵

This starts GEM Setup. The first GEM Setup Screen you see looks similar to the illustration below:

	Digital Research Inc.	GEM Setup R 3.0
<p style="text-align: center;">Welcome to GEM Setup!</p> <p>This program installs GEM/3 onto your computer. Do you want to install GEM/3 for the first time or change an existing GEM/3 installation?</p> <p>[✓] INSTALL NEW CONFIGURATION</p> <p>[] CHANGE EXISTING CONFIGURATION</p> <p style="text-align: center;">Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.</p>		

The \surd symbol, which blinks on your screen, indicates the item being selected. On some display monitors, this symbol appears as a box or triangle.

Select **INSTALL NEW CONFIGURATION** and follow the instructions through the end of the program. The instructions differ, depending on whether you are installing GEM/3 onto a hard disk or onto floppy disks. These instructions are explained below. In either case, you will be asked to provide the information outlined on the System Information Sheet in Chapter 1.

Installing onto a Hard Disk

Follow the steps below to install GEM/3 onto your hard disk.

You have just selected **INSTALL NEW CONFIGURATION**. If your system has more than one hard disk, GEM Setup asks you to specify the one onto which you want to install GEM/3. Otherwise, you see the following:

From the list below, select the graphics card and display installed in your system.

- ☐ **AT&T DEB Card / 16-Color Display (640x400)**
- ☐ **AT&T Monochrome Card (640x400)**
- ☐ **Hercules Card / Monochrome PC Display (720x348)**
- ☐ **IBM CGA / Color Display (640x200) - Mono Mode**
- ☐ **IBM EGA / Monochrome Display (640x350)**
- ☒ **IBM Enhanced Card & Enhanced 16-Color Display (640x350)**
- ☐ **IBM 16 -Color VGA for PS/2 (640x480) or Compatible**
- ☐ **IBM VGA Monochrome for the PS/2 (640x480) or Compatible**
- ☐ **MDS THE GENIUS Monitor / THE GENIUS Monitor Card (728x1008)**
- ☐ **Video 7 Vega Deluxe / Quadram Prosync 16-Color Display (640x480)**
- ☐ **Video 7 Vega Deluxe / Quadram Prosync 16-Color Display (752x410)**
- ☐ **Wyse/Amdek Monochrome Graphics Display (1280x800)**
- ☐ **OTHER (Driver Pack)**

Press [F1] for device info, \uparrow or \downarrow to move cursor, [ENTER] to choose.

1. Choose the graphics card/display type installed on your computer. If your display is compatible with any of the devices listed, choose the entry for the compatible device. If you are installing from a driver pack disk, choose OTHER and select your device from the list displayed.

For more information about driver packs available from Digital Research, see the Driver Pack Information Sheet supplied with this package.

Note: The devices listed on your screen may differ from the ones shown in the preceding illustration.

Next you see:

Select the mouse or tablet you are using from the list below.

- ☒ No Mouse
- ☐ Bus Mouse (Requires file MOUSE.COM)
- ☐ IBM Personal System/2 Mouse
- ☐ Microsoft Serial Mouse (RS232)
- ☐ Mouse Systems PC Mouse / SummaMouse / Compatibles
- ☐ SummaSketch 961 cursor-type tablet
- ☐ SummaSketch 961 stylus-type tablet
- ☐ SummaSketch 1201 cursor-type tablet
- ☐ SummaSketch 1201 stylus-type tablet
- ☐ Summagraphics MM1812 cursor-type tablet
- ☐ Summagraphics MM1812 stylus-type tablet

Press [F1] for device info, ↑ or ↓ to move cursor, [ENTER] to choose.

2. Identify your mouse as you did your graphics card/display. If you are unable to determine the type of mouse you are using, chances are you are using a *generic* serial mouse. In this case, choose the fifth option:

Mouse Systems PC Mouse / SummaMouse / Compatibles

GEM Setup displays:

Select a communications port for your mouse or tablet:

☒ Communications port #1 (COM1)

☐ Communications port #2 (COM2)

Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

3. Choose your mouse communications port. Read "Specifying Communications Ports" in Chapter 1 for information about communications ports.

Note: If you have a bus mouse, you need to install it according to the manufacturer's instructions and copy the file MOUSE.COM onto the root directory of your hard disk. You will find this file either on the disk supplied with your mouse or on your DOS boot disk.

You must run MOUSE.COM *before* starting the GEM Desktop. You can run it from within your AUTOEXEC.BAT file (See "Starting the GEM Desktop Automatically" later in this chapter.)

After you choose your mouse port, GEM Setup displays your hardware setup. It looks like the following example:

Your current setup is:

IBM Enhanced Card & 16-Color Display (640x350)

Mouse Systems PC Mouse / SummaMouse / Compatibles

Communications port #1 (COM1)

Would you like to:

☒ CONTINUE

☐ SAVE AND EXIT FROM GEM SETUP

Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

If you wish to install GEM/3 software for another device such as a printer, choose **CONTINUE** – see Chapter 3 for installation instructions. If you do not intend to use an output device, you should now check to see that installation was successful. Installation results are explained later in this chapter.

Installing onto Floppy Disks

You have just selected **INSTALL NEW CONFIGURATION**. The following *alert* (reminder or warning) is displayed:

To continue, you will need to have **TWO** empty formatted disks ready. If you need to clean off or format a disk, you must exit GEM Setup and return to DOS to do so.

[☒] **EXIT TO DOS**
[☐] **CONTINUE**

This alert is displayed if you are using double-density disks. If you are using a high-density or 3.5" disk, you need only one empty disk.

1. Choose **CONTINUE** unless you need to exit GEM Setup to prepare your disk(s).

Next, GEM Setup instructs you to label your GEM STARTUP and GEM DESKTOP disks (GEM DESKTOP only if 3.5" disk) and set them aside. When you complete these instructions, you see a list of graphics cards/displays (shown on page 2-3).

2. Choose the graphics card/display type installed on your computer. If your display is compatible with any of the display monitors listed, choose the entry for the compatible display. If you are installing from a driver pack disk, choose **OTHER** and select your device from those listed.

For more information about the driver packs available from Digital Research, see the GEM/3 Driver Pack Information Sheet supplied with this package.

GEM Setup displays a list of mice and graphics tablets (see page 2-4).

3. Choose your mouse as you did your graphics card/display monitor. If you are unable to determine the type of mouse you are using, chances are you are using a *generic* serial mouse. In this case, select the fifth option:

Mouse Systems PC Mouse / SummaMouse / Compatibles

When you choose your mouse, GEM Setup lists communications ports COM1 and COM2 (shown on page 2-5).

4. Choose your mouse communications port. See "Specifying Communications Ports" in Chapter 1 for information about communications ports.

Note: If you have a bus mouse, you need to install it according to the mouse manufacturer's instructions and copy the file MOUSE.COM onto your DOS boot disk. You will find this file either on the disk supplied with your mouse or on your DOS boot disk.

You need to copy MOUSE.COM *before* starting the GEM Desktop. MOUSE.COM can be executed from within your AUTOEXEC.BAT file.

When you choose your mouse port, GEM Setup displays your current hardware setup. Here's an example:

Your current setup is:

IBM Enhanced Card & 16-Color Display (640x350)
Mouse Systems PC Mouse / SummaMouse / Compatibles
Communications port #1 (COM1)

Would you like to:

☒ CONTINUE
☐ SAVE AND EXIT FROM GEM SETUP

Press ↑ or ↓ to move cursor, [ENTER] to choose, [ESC] to exit/cancel.

To install another device, such as a printer, choose **CONTINUE** (see Chapter 3 for installation instructions).

If you do not intend to use an output device, choose **SAVE AND EXIT FROM GEM SETUP**. GEM Setup instructs you to insert your installation disks and copies the driver files onto your system. When it finishes copying, installation is complete.

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